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In The

Supreme Court of the United States

October Term, 1997

PNEUMO ABEX CORPORATION, WHITMAN CORPORATION, CITY OF PORTSMOUTH, VIRGINIA, a municipal corporation, and PORTSMOUTH REDEVELOPMENT AND HOUSING AUTHORITY,

Petitioners,

versus

HIGH POINT, THOMASVILLE AND DENTON RAILROAD CO., NORFOLK SOUTHERN RAILWAY CO.; NORFOLK & WESTERN RAILWAY CO.; C X CORPORATION; CSX TRANSPORTATION, INC.; and FRUIT GROWERS EXPRESS CO., INC.,

Respondents.

On Petition For Writ Of Certiorari To The United States Court Of Appeals For The Fourth Circuit

PETITION FOR WRIT OF CERTIORARI

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QUESTION PRESENTED

The Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") imposes strict liability for the costs of cleaning up hazardous substances that were released into the environment on any person who "arranged for disposal or treatment" of such hazardous substances. "Disposal" and "treatment" are defined by reference to the definitions of those terms in the Resource Conservation and Recovery Act, which governs the handling of solid and hazardous waste.

The question presented for review is:

Whether a person, who arranges for recycling of used materials that contain hazardous substances and are unfit for their original purpose, is an arranger for "disposal or treatment" of those hazardous substances within the meaning of CERCLA, when the recycling process results in the release of hazardous substances into the environment.

PARENT COMPANIES AND NON-WHOLLY OWNED SUBSIDIARIES

Whitman Corporation, the City of Portsmouth, Virginia, a municipal corporation, and the Portsmouth Redevelopment and Housing Authority. These petitioners have no parent companies or non-wholly owned subsidiaries that have issued shares to the public.

Pneumo Abex Corporation. The following company is a parent company of Pneumo Abex Corporation that has issued shares to the public: M & F Worldwide Corporation.

TABLE OF CONTENTS

TABLE OF AUTHORITIES vi

OPINIONS BELOW 1

JURISDICTION 1

STATUTES INVOLVED 1

STATEMENT OF THE CASE 1

REASONS FOR GRANTING THE WRIT 9

I. The Fourth Circuit's Decision Is a Radical Reinterpretation of "Discarded Material" — The Key Phrase that Governs EPA Jurisdiction over Hazardous Waste — and Creates an Arbitrary Exception from CERCLA Liability. 11

A. The Fourth Circuit Erroneously Considered Factors Such as "Intent" and "Value" to Determine that Material Destined for Recycling Is Not "Discarded." 11

B. The Fourth Circuit's Interpretation of "Discarded Material" Will Damage RCRA Enforcement and Administration. 13

C. The Fourth Circuit's Opinion Is Contrary to the Fundamental Principles of CERCLA Liability. . 16

D. The Fourth Circuit's Decision Impairs EPA's Ability to Clean Up Existing Superfund Sites and Will Lead to More Superfund Sites in the Future. 19

II. The Court Should Review the Fourth Circuit's Decision in Order to Resolve Conflict Between the Circuits. 21

A. The Fourth Circuit's Holding That Scrap Materials Destined for Recycling Are Not "Discarded" Under RCRA Contradicts Decisions of the D.C. and Eleventh Circuits. 21

B. The Fourth Circuit's Opinion Contradicts the Fundamental Principle That the Sale of Material Unfit for Its Original Purpose Is an Arrangement for Treatment or Disposal Under CERCLA. ... 23

CONCLUSION 25

APPENDIX ..... App. 1

Pneumo Abex Corp. v. High Point, Thomasville and Denton R.R. Co., 142 F.3d 769 (4th Cir. 1998) .. App. 1

Pneumo Abex Corp. v. Bessemer & Lake Erie R.R. Co., 921 F. Supp. 336 (E.D. Va. 1996) ..... App. 18

Pneumo Abex Corp. v. Bessemer & Lake Erie R.R. Co., 936 F. Supp. 1250 (E.D. Va. 1996) ..... App. 49

Pneumo Abex Corp. v. High Point, Thomasville and Denton R.R Co., Nos. 97-1593, -1594, -1599, (4th Cir. May 27, 1998) (order denying rehearing) ..... App. 105

Resource Conservation and Recovery Act of 1976 § 1004(3), (5), (27), (34), 42 U.S.C. § 6903(3), (5), (27), (34) (1994) ..... App. 112

Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, § 101(14), (29), 42 U.S.C. § 9601(14), (29) (1994) ..... App. 113

Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, § 106(a), 42 U.S.C. § 9606(a) (1994) ..... App. 115

Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, § 107(a), (b), 42 U.S.C. § 9607(a), (b) (1994) ..... App. 116

U.S. Environmental Protection Agency, Region III CERCLA § 106 Administrative Order ..... App. 119

U.S. Dept. of Justice Letter to Clerk of the United States Court of Appeals for the Fourth Circuit ..... App. 197

U.S. Environmental Protection Agency, Region III Letter to CSX Transportation, Inc., August 7, 1998 ..... App. 200

TABLE OF AUTHORITIES

CASES

3550 Stevens Creek Assoc. v. Barclays Bank, 915 F.2d 1355 (9th Cir. 1990) 18, 19

A & W Smelter and Refiners v. Clinton, 146 F.3d 1107 (9th Cir. 1998) 17, 23

AM International v. International Forging Equipment Corp., 982 F.2d 989 (6th Cir. 1993) 17, 18, 19, 24

American Mining Congress v. United States EPA, 907 F.2d 1179 (D.C. Cir. 1990) (*AMC II*) ... 12, 21, 22

American Petroleum Inst. v. United States EPA, 906 F.2d 729 (D.C. Cir. 1990) 21

B.F. Goodrich v. Betkoski, 99 F.3d 505 (2d Cir. 1996) 3

Cadillac Fairview v. United States, 41 F.3d 562 (9th Cir. 1994) 18, 23

California v. Summer del Caribe, 821 F. Supp. 574 (N.D. Cal. 1993) 24

Catellus v. United States, 34 F.3d 748 (9th Cir. 1994) 18, 24

Chatham Steel Corp. v. Brown, 858 F. Supp. 1130 (N.D. Fla. 1994) 24

Chesapeake & Potomac Tel. Co. v. Peck Iron & Metal Co., 814 F. Supp. 1269 (E.D. Va. 1992) 24

Chevron U.S.A. v. Natural Resources Defense Council, 467 U.S. 837 (1984) 10, 11

Connecticut Coastal Fishermen's Ass'n v. Remington Arms Co., 989 F.2d 1305 (2d Cir. 1993) 22

Ekotek Site PRP Comm. v. Self, 881 F. Supp. 1516 (D. Utah 1995) 24

Florida Power & Light Co. v. Allis Chalmers Corp., 893 F.2d 1313 (11th Cir. 1990) 18, 24

Gould v. A & M Battery & Tire Serv., No. 3 CV-91-1714, 1996 U.S. Dist. LEXIS 11352 (M.D. Pa. July 15, 1996) 24

Key Tronic Corp. v. United States, 511 U.S. 809 (1994) 2, 3

Louisiana-Pacific Corp. v. ASARCO, 24 F.3d 1565 (9th Cir. 1994) 23

Meghrig v. KFC Western, 516 U.S. 479 (1996) 2

Military Toxics Project v. EPA, 146 F.3d 948 (D.C. Cir. 1998) 4

Pennsylvania v. Union Gas Co., 491 U.S. 1 (1989) 16

Shell Oil Co. v. EPA, 950 F.2d 741 (D.C. Cir. 1991) 21

United States v. Bestfoods, 118 S. Ct. 1876 (1998) 16

United States v. ILCO, 996 F.2d 1126 (11th Cir. 1993) 12, 22

United States v. Summit Equip. & Supplies, 805 F. Supp. 1422 (N.D. Ohio 1992) 24

STATUTES

28 U.S.C. § 1254 (1994) 1

Resource Conservation and Recovery Act of 1976 ("RCRA"), 42 U.S.C. § 6901, *et seq.* (1994) .... *passim*

42 U.S.C. § 6901 (RCRA § 1002) 4

42 U.S.C. § 6903 (RCRA § 1004) .. 1, 3, 4, 5, 7, 12, 17

42 U.S.C. § 6921 (RCRA § 3001) 4, 5, 12

42 U.S.C. § 6926 (RCRA § 3006) 13, 15

42 U.S.C. § 6928 (RCRA § 3008) 5

42 U.S.C. § 6973 (RCRA § 7003) 5, 13, 15

Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9601, *et seq.* (1994) ..... *passim*

42 U.S.C. § 9601 (CERCLA § 101) 1, 3, 5, 17

42 U.S.C. § 9606 (CERCLA § 106) 6

42 U.S.C. § 9607 (CERCLA § 107) 1, 3, 7, 11, 19, 20, 25

42 U.S.C. § 9613 (CERCLA § 113) 7

REGULATIONS

40 C.F.R. § 260.30 13

40 C.F.R. § 260.40 14

40 C.F.R. § 261.1-261.4 14

40 C.F.R. § 261.6 14

40 C.F.R. pt. 265, subpt. I 14

40 C.F.R. § 266.70 14

40 C.F.R. Part 300 20

40 C.F.R. 302.4 5

OTHER

48 Fed. Reg. 14472 (1983) 10, 12, 20

50 Fed. Reg. 614 (1985) 12

60 Fed. Reg. 57747 (1995) 16

61 Fed. Reg. 62005 (1996) 13

61 Fed. Reg. 2338 (1996) 15

62 Fed. Reg. 25998 (1997) 12, 14

62 Fed. Reg. 26041 (1997) 16

63 Fed. Reg. 28556 (1998) 16

63 Fed. Reg. 42110 (1998) 16

H.R. Rep. No. 1491, 94th Cong., 2d Sess. 2 (1976), reprinted in 1976 U.S.C.C.A.N. 6238, 6240 22

Hearing of the Transp. and Hazardous Materials Subcomm. of the House Energy and Commerce Comm., FED. NEWS SERVICE, March 16, 1992 (102d Cong., 2d Sess., Testimony of Richard Fortuna, Exec. Dir. of the Haz. Waste Treatment Council) ... 20

OPINIONS BELOW

The opinion of the court of appeals, *Pneumo Abex Corp. v. High Point, Thomasville and Denton R.R. Co.*, 142 F.3d 769 (4th Cir. 1998), is reproduced at App. 1. The opinions of the district court, *Pneumo Abex Corp. v. Bessemer & Lake Erie R.R. Co.*, 921 F. Supp. 336 (E.D. Va. 1996), and *Pneumo Abex Corp. v. Bessemer & Lake Erie R.R. Co.*, 936 F. Supp. 1250 (E.D. Va. 1996), are reproduced at App. 19 and App. 49, respectively.

JURISDICTION

The judgment of the United States Court of Appeals for the Fourth Circuit was entered on April 29, 1998. App. 1. The court denied petitioners' timely petition for rehearing on May 27, 1998. App. 105. This Court has jurisdiction to issue the requested writ of certiorari pursuant to 28 U.S.C. § 1254(1) (1994).

STATUTES INVOLVED

Sections 101(14), 101(29) and 107 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601(14), 9601(29), 9607 (1994), are reproduced at App. 114-116. Section 1004(3), (5), (27), (34) of the Resource Conservation and Recovery Act of 1976, 42 U.S.C. § 6903(3), (5), (27), (34) (1994), is reproduced at App. 112-13.

STATEMENT OF THE CASE

This case concerns cleanup liability for a Superfund site located in Portsmouth, Virginia, which is contaminated with lead and other metals from scrap metal sent to the site by the respondent railroads for processing. Petitioners are engaged in a cleanup at that site under a consent decree with the United

States Environmental Protection Agency ("EPA"). EPA also issued an administrative order to the respondents designating them as liable parties and requiring them to contribute to the cleanup effort.[1] Petitioners brought suit under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9601, *et seq.* (1994), to require the respondents to contribute to the cost of the cleanup. On appeal from the district court's finding of respondents' liability, the Fourth Circuit held that the respondents did not arrange for "disposal" or "treatment" because their scrap metal was not "discarded," a key term used in the Resource Conservation and Recovery Act of 1976 ("RCRA"), 42 U.S.C. § 6901, *et seq.* (1994). Petitioners seek review of the Fourth Circuit's decision that the respondent railroads are not liable under the CERCLA and RCRA terminology. As will be discussed, the meaning of these terms is of fundamental importance to the legal and administrative enforcement of these vital environmental statutes.

A. Statutory Background

The court of appeals ruling in this case raises issues of statutory construction arising under both CERCLA and RCRA. These comprehensive statutes were enacted to protect the environment. CERCLA is designed to effectuate the cleanup of existing contaminated sites, while RCRA's primary purpose is to ensure the proper handling of waste so as to prevent the creation of such sites. *Meghrig v. KFC Western*, 516 U.S. 479, 483, 485 (1996). CERCLA authorizes EPA to command private parties to clean up hazardous waste sites. *Key Tronic Corp. v. United States*, 511 U.S. 809, 814 (1994). In addition,

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[1] EPA has suspended (but has not withdrawn) its administrative order due to the Fourth Circuit's ruling in this case. App. 200-201.

private parties who themselves clean up a site may seek recovery of their costs from other liable parties. *Id.*

Congress intended that all those who benefit financially from a commercial activity internalize the cleanup costs associated with that activity as a cost of doing business. *B.F. Goodrich v. Betkoski*, 99 F.3d 505, 514 (2d Cir. 1996). Accordingly, Congress imposed liability for cleanup costs on four categories of entities: *(1)* owners or operators of polluting facilities; *(2)* persons who owned or operated such facilities at the time hazardous substances were disposed; *(3)* persons "who by contract, agreement, or otherwise arranged for disposal or treatment," or arranged for transport, of hazardous substances; and *(4)* transporters who selected disposal or treatment sites. CERCLA § 107(a)(1)-(4), 42 U.S.C. § 9607(a)(1)-(4). This case concerns the third category of liable party – those who arranged for "disposal" or "treatment." CERCLA § 107(a)(3), 42 U.S.C. § 9607(a)(3).

CERCLA uses many of the same statutory terms as RCRA, and incorporates certain definitions by express reference to RCRA. In particular, CERCLA provides that the terms "disposal" and "treatment," relevant to CERCLA arranger liability, shall have the meaning provided in RCRA. CERCLA § 101(29), 42 U.S.C. § 9601(29). In its definition of "treatment," RCRA refers to "hazardous waste;" in its definition of "disposal," RCRA refers to "solid waste or hazardous waste." RCRA § 1004(3), (34), 42 U.S.C. § 6903(3), (34). For example, "treatment" includes processes that alter the character of "hazardous waste" to render it "amenable for recovery."[2]

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[2] "Treatment" is any process designed to "change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste nonhazardous, safer for transport, amenable for

RCRA § 1004 (34), 42 U.S.C. § 6903 (34).

"Hazardous waste" is a "solid waste" that may pose a "substantial present or potential hazard to human health or the environment." RCRA § 1004(5), 42 U.S.C. § 6903(5). RCRA defines "solid waste" as "garbage. . . *and other discarded material*, including solid, liquid, semisolid, or contained gaseous material," with certain exceptions not relevant here. RCRA § 1004(27), 42 U.S.C. § 6903(27) (emphasis added); *see also* RCRA § 1002(a)(2), 42 U.S.C. § 6901(a)(2) (RCRA was designed to stem the "rising tide of scrap, discarded and waste materials" resulting from industrial operations).[3]

The term "discarded" is the core term which defines RCRA's "gatekeeper" concept of solid waste and hazardous waste. It determines the ultimate scope of RCRA's comprehensive civil regulatory and criminal enforcement programs. For instance, EPA's authority to remedy

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recovery, amenable for storage, or reduced in volume." RCRA § 1004(34), 42 U.S.C. § 6903(34).

"Disposal" is "the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters. . ." RCRA § 1004(3), 42 U.S.C. § 6903(3).

[3] EPA promulgated narrower regulatory definitions of "hazardous waste" and "solid waste" that designate particular waste subject to EPA's stringent regulatory program under subchapter III of RCRA. RCRA § 3001, 42 U.S.C. § 6921. These regulatory wastes are thus a subset of the statutory wastes defined in RCRA § 1004(5), (27), 42 U.S.C. § 6903(5), (27), over which EPA has authority in the first place. *Military Toxics Project v. EPA*, 146 F.3d 948 (D.C. Cir. 1998).

contamination under RCRA extends to "solid waste and hazardous waste." RCRA § 7003, 42 U.S.C. § 6973. EPA's authority to regulate handling, treatment and storage of dangerous materials extends to "hazardous waste." RCRA §§ 1004(5), 3001, 42 U.S.C. §§ 6903(5), 6921. RCRA's felony criminal enforcement provisions also key on "hazardous waste." RCRA § 3008, 42 U.S.C. § 6928. In order to be a "hazardous waste," material must first be a "solid waste." RCRA § 1004(5), 42 U.S.C. § 6903(5). Because EPA's authority under RCRA extends only to materials that are "solid waste," the meaning of "discarded" is of enormous importance to EPA's statutory mission under RCRA.

B. Facts

From 1927 to 1978 the Abex foundry in Portsmouth, Virginia processed scrap metal railroad parts and recast the scrap metal into new parts. During that time, railroads used metal parts called journal bearings on their rail cars to reduce friction. In accordance with the railroad industry specifications, journal bearings had two parts, a lead lining and a brass back, consisting of lead, copper, zinc, nickel and antimony, all of which are hazardous substances under CERCLA. CERCLA § 101(14), 42 U.S.C. § 9601(14); 40 C.F.R. § 302.4; App. 22.

During use, the journal bearings became scorched, broken and worn to the point that the railroads could no longer use them. These unusable journal bearings were regularly removed and replaced with new bearings. The railroads accumulated the scrap journal bearings and delivered them to the Abex foundry in their own rail cars. In exchange for the scrap, the railroads received a credit toward the price of new journal bearings to be purchased from the Abex foundry. App. 8-9, 22-23.

The foundry melted down the scrap journal bearings to recover the lead linings from the backs and to remove dirt,

grease and metal impurities. The impurities were skimmed off as dross and then placed on the back lot of the foundry property along with dust from equipment for controlling air emissions from the reclamation process. The molten metal was poured into sand molds to form the backs of new bearings. The scrap lining metal was similarly processed and then used to line new backs. When the sand from the molds eventually dried out, it was washed to reclaim bits of metal and then placed on the back lot of the foundry property along with the dross and dust. The railroads regularly inspected the foundry operations and processes as well as the reclaimed bearings for conformance with industry specifications. App. 8-9, 15, 23, 91.

C. EPA's Involvement

In the mid-1980's, after discovering elevated levels of lead, copper, zinc, nickel and antimony in soil at the foundry, the EPA identified the foundry and surrounding properties ("the site") as a Superfund site by placing it on the National Priorities List. In 1986, Abex began performing cleanup activities at the site, including soil excavation, sampling and analysis, in accordance with administrative orders issued by EPA and the state environmental agency. App. 9-10, 23-24.

In 1993 and 1994, EPA notified the respondent railroads who had sent scrap metal to the Abex foundry that they also were responsible for cleanup under CERCLA. Each time, the railroads declined to cooperate with EPA. In 1995, petitioners the City of Portsmouth, Virginia, ("the City") and the Portsmouth Redevelopment and Housing Authority ("PRHA"), each of whom own property within the site, and Abex's corporate successor, Pneumo Abex Corporation ("Pneumo Abex"), entered into a consent decree to perform the entire permanent remedy selected for the site. That remedy is currently underway. In 1996, EPA issued an administrative order under section 106 of CERCLA, 42 U.S.C. § 9606,

requiring that the railroads contribute to the permanent remedy for the site.[4] App. 9-10, 23-24, 93-95, 119.

D. Proceedings Below

Petitioners Pneumo Abex, Whitman Corporation, the City and the PRHA brought a CERCLA action in the United States District Court for the Eastern District of Virginia against the railroads that had sent scrap metal parts to the Abex foundry, seeking contribution for a fair share of cleanup costs. Jurisdiction in the district court was based on CERCLA section 113(b), 42 U.S.C. § 9613(b). On cross-motions for summary judgment, the district court held the railroads liable for having arranged both for the disposal and for the treatment of hazardous substances under CERCLA section 107, 42 U.S.C. § 9607. App. 48.

The district court determined at the outset that the scrap metal parts were "hazardous substances" under CERCLA. App. 32. Further, the district court held that "the sale and subsequent processing of the worn bearings fall within the definition of treatment" because "the processing at the Site reduced the waste in volume from whole, worn bearings and castings to residual amounts of the constituent elements" and also "rendered the constituent elements of the worn journal bearings amenable for recovery." App. 36; RCRA § 1004(34), 42 U.S.C. § 6903(34) (defining "treatment" as any process designed to render hazardous waste "amenable for recovery" or "reduced in volume"). In addition, the district court held that the railroads arranged for the ultimate disposal of the constituent elements of the scrap metal parts, either through the emission of particulate

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[4] As previously noted, due to the Fourth Circuit's ruling in this case, EPA recently suspended its administrative order. App. 200-201.

matter from the foundry or by the placing of the sand once used as molds on the back lot of the Site. App. 38. The court found that the scrap parts were not "useful products" but instead were disposed because they were unusable for their original purpose when they were sent to the Abex foundry. App. 35.

Following the district court's decision on summary judgment, all of the defendants except the respondents settled with the plaintiffs. The district court then held a bench trial to consider the appropriate share of the costs to be allocated to the remaining defendant railroads, each of which had declined to settle with either EPA or the plaintiffs. The court concluded that the respondents, which had sent the largest volume of scrap to the foundry, should pay 40.1% of the cleanup costs. App. 103.

The Fourth Circuit reversed, holding that the respondents are not liable for having arranged for treatment or disposal under CERCLA. The court ruled that "treatment" as used in CERCLA applies only to materials that qualify as "discarded" as that term is used in RCRA. App. 13. The court then determined that the materials at issue here, scrap metal parts, were not "discarded" based on (1) the intent of the parties to the recycling transaction that the materials were to be reused entirely, (2) the value of the materials sold, (3) the usefulness of the materials in the condition in which they were sold, and (4) the state of the product at the time of transferral, *i.e.*, whether the hazardous material was contained or loose and leaking. App. 14.

The plaintiffs petitioned for rehearing and, in that context, the U.S. Department of Justice filed a letter with the Fourth Circuit noting that the decision presents issues of "considerable importance to the federal government." App. 199. The Fourth Circuit denied rehearing on May 27, 1998. App. 111.

REASONS FOR GRANTING THE WRIT

The decision of the court of appeals in this case conflicts with the rulings of other courts of appeal concerning the scope of two of this nation's most important environmental protection laws. The Fourth Circuit's opinion disregards EPA's long-standing interpretation of the term "discarded," which defines the range of materials subject to RCRA. Moreover, the opinion conflicts with the D.C. and Eleventh Circuits on the meaning of "discarded" under RCRA and with the Ninth Circuit on the test for arranger liability under CERCLA.

Congress enacted both CERCLA and RCRA in order to protect the public and our natural environment from the dangers presented by the management of solid and hazardous wastes and the treatment and disposal of hazardous substances. A central threshold issue faced by EPA in implementing each of these laws has been the Agency's determination regarding when recycling activities should be covered by the statutes.

EPA must, in both statutory contexts, balance its desire to promote recycling with its recognition that these activities may present risks to health and the environment. If recycling were not governed by these statutes, CERCLA liability for cleanup and waste management responsibilities under RCRA could be avoided simply by conveying discarded materials to another who claimed an intent to reuse potentially valuable hazardous constituents. Indeed, a great number of the hazardous waste sites identified for cleanup under both RCRA and CERCLA are the result of recycling activities.[5]

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[5] Recycling operations account for "nearly one-third of the 61 imminent hazard actions filed to date under Section 7003 of RCRA, and 20 of the first 160 interim priority sites listed under the Comprehensive Environmental Response, Compensation and

In enforcing RCRA, EPA has achieved this balance by consistently interpreting the term "discard" to include recyclable materials unless they are immediately recycled in a continuous process. This interpretation has likewise been adopted by the courts. Similarly, settled judicial precedent distinguishes between the sale of a product still useful for its original purpose, which falls outside CERCLA, and the recycling of material no longer useful for its original purpose, which triggers CERCLA liability.

The Fourth Circuit's ruling completely ignored EPA's administrative interpretation and disrupted settled judicial precedent. The court ruled that CERCLA liability turned on the meaning of "discarded material," used in RCRA, and then, contrary to *Chevron U.S.A. v. Natural Resources Defense Council*, 467 U.S. 837 (1984), substituted its own view of the meaning of this key term for that of the expert agency charged with RCRA's implementation. The court of appeals, as a result, has cast a cloud of legal uncertainty over numerous pending government enforcement actions, government cost recovery actions, and private cost recovery actions under CERCLA. Even more dramatically, the court of appeals has called into question the jurisdictional scope of RCRA itself, including its entire civil regulatory and criminal enforcement programs, as well as those EPA-authorized state hazardous waste programs that invariably utilize "discarded material" as their jurisdictional touchstones.

This Court's review is warranted because of the profound importance of the legal issues, the circuit conflict created by the decision, and the failure of the court of appeals to follow this Court's precedent requiring deference to the Agency's interpretation. Because the court of appeals' ruling seriously

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Liability Act (Superfund)." 48 Fed. Reg. 14472, 14474 (1983).

disrupts EPA's authority under both RCRA and CERCLA, and in light of the involvement and interest of EPA in this case, the Court may wish to invite the Solicitor General of the United States to express the views of the United States prior to acting on this petition.

I. The Fourth Circuit's Decision Is a Radical Reinterpretation of "Discarded Material" — The Key Phrase that Governs EPA Jurisdiction over Hazardous Waste — and Creates an Arbitrary Exception from CERCLA Liability.

A. The Fourth Circuit Erroneously Considered Factors Such as "Intent" and "Value" to Determine that Material Destined for Recycling Is Not "Discarded."

The Fourth Circuit ignored this Court's decision in *Chevron* by failing to defer to EPA's reasonable interpretation of "discard" and by instead injecting into the statutory analysis its own judicially created list of subjective "factors." *See Chevron U.S.A. v. Natural Resources Defense Council*, 467 U.S. 837 (1984). The Fourth Circuit's task was to construe the phrase "arranged for disposal or treatment . . . of hazardous substances" under CERCLA section 107(a)(3), 42 U.S.C. § 9607(a)(3). The Fourth Circuit first held that a hazardous substance must also be "discarded," within the meaning of RCRA, for a person to have arranged for its treatment under CERCLA, because CERCLA refers to RCRA for the definition of "treatment." App. 13. The court then seriously misstepped in disregarding both judicial precedent and the Agency's interpretation of the meaning of "discard" under RCRA.

Wholly missing from the Fourth Circuit's analysis was the slightest acknowledgment of either the applicability of this Court's decision in *Chevron* or the relevance of EPA's

authoritative construction of the statutory term "discard." Indeed, the court of appeals failed to note even the existence of EPA's longstanding, comprehensive regulatory program. EPA has carefully considered, and articulated in a series of rulemakings, the extent to which recycling activities should fall within RCRA's regulatory scope. See, e.g, 48 Fed. Reg. 14472 (1983); 50 Fed. Reg. 614 (1985), 62 Fed. Reg. 25998 (1997). On each of those occasions, the Agency repudiated the very analysis embraced by the Fourth Circuit.

As interpreted by the EPA Administrator, a material that is no longer fit for its original purpose, and is destined for recycling, is "discarded" unless it is retained by the generating industry for immediate reuse in a continuous process. *American Mining Congress v. United States EPA*, 907 F.2d 1179, 1186 (D.C. Cir. 1990) ("*AMC II*") (discussing EPA's interpretation of "discarded"); *United States v. ILCO*, 996 F.2d 1126, 1131 (11th Cir. 1993) (same). This longstanding administrative and judicially approved interpretation maintains EPA's discretion to regulate (or conditionally exempt from regulation) most recyclable material, except for byproducts of industrial processes that will never become part of the waste disposal problem because they are immediately reused.[6]

In contrast, the Fourth Circuit's narrow reading of "discarded" insulates most recyclable materials entirely from the RCRA regulatory system, and the vagueness of the court's interpretation complicates enforcement and compliance. The Fourth Circuit's new test for "discard" is based on:

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[6] Among the universe of materials which are hazardous waste under RCRA § 1004(5), 42 U.S.C. § 6903(5), EPA has discretion to choose particular waste to be governed by the stringent regulatory program under subchapter III of RCRA. RCRA § 3001, 42 U.S.C. § 6921.

> the intent of the parties to the contract as to whether the materials were to be reused entirely or reclaimed and then reused, the value of the materials sold, the usefulness of the materials in the condition in which they were sold, and the state of the product at the time of transferral (was the hazardous material contained or leaking/loose).

App. 14. The Fourth Circuit interpreted "discarded" without reference to or consideration of the EPA Administrator's views and without consideration for the effect a vague or narrow definition would have on the RCRA regulatory and criminal enforcement programs. As a result, in deciding a CERCLA case, the court adopted a definition of "discarded" that entirely disrupts years of agency enforcement and judicial action under CERCLA and RCRA.

B. The Fourth Circuit's Interpretation of "Discarded Material" Will Damage RCRA Enforcement and Administration.

The term "discarded" goes to the heart of EPA's authority under multiple aspects of RCRA, and thus the Fourth Circuit's opinion will have broad negative impacts on *(1)* the RCRA regulatory program, *(2)* criminal enforcement under RCRA, *(3)* EPA's response to "imminent and substantial endangerments" under RCRA section 7003, 42 U.S.C. § 6973, and *(4)* state administration of hazardous waste programs that EPA has authorized to operate in lieu of the federal program under RCRA section 3006, 42 U.S.C. § 6926.

EPA has consistently and repeatedly exercised its authority to regulate recyclables under RCRA. *See, e.g.*, 61 Fed. Reg. 62005, 62151 (1996) (discussing need to improve regulation of hazardous waste recycling); 40 C.F.R. §§ 260.30 (administrative variances from Subtitle C regulations for certain

recyclables); 260.40 (regulating hazardous waste recycling); 261.1-261.4 (exceptions to Subtitle C regulations for certain recyclables); 261.6 (requirements for recyclable materials); 266.70 (regulating recyclable materials that are reclaimed to recover precious metals); and dozens of other regulations that utilize these by reference. Indeed, when exempting particular scrap metals from the RCRA subchapter III regulatory program, EPA specifically declined to extend the exemption to "obsolete scrap metal (scrap which is composed of worn out metal or a metal product that has outlived its original use, such as . . . railroad cars . . .) . . ." 62 Fed. Reg. 25998, 26011 (1997).[7]

Under the Fourth Circuit's decision, EPA would not have had the authority to promulgate these and many other regulations.[8] With its multi-factored interpretation of "discarded," the Fourth Circuit upsets RCRA's regulatory scheme by appropriating to the judiciary on a case-by-case basis a determination which Congress intended to be an administrative, science-based function.

Because the definition of "discarded material" governs criminal liability under RCRA as well as the regulatory program, the court of appeals' reinterpretation of RCRA's key jurisdictional phrase will have wide ramifications, as criminal defendants assert new defenses based, for example, on their

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[7] *See* note 3, *supra* (EPA may exercise its discretion not to regulate under subchapter III materials which are wastes within the statutory definition of solid waste).

[8] For example, the court's consideration of whether hazardous substances are "delivered in a contained form" to determine whether they are "discarded" is clearly contrary to EPA regulations, which apply to discarded material regardless of how it is contained. *See, e.g.*, 40 C.F.R. pt. 265, subpt. I (regulating and conditioning the use of containers).

intent that dangerous waste be entirely used up in a reclamation process. Likewise, the Fourth Circuit's interpretation of "discard" undercuts EPA's ability to require persons to respond to imminent hazards because its authority is limited to hazards resulting from solid waste (that is, discarded material). RCRA § 7003, 42 U.S.C. § 6973.

Further, the court of appeals' reinterpretation of "discarded" will complicate EPA's oversight of state-implemented hazardous waste programs under RCRA section 3006, 42 U.S.C. § 6926. States that enact laws and regulations that are consistent with the federal program may, upon EPA authorization, implement their programs "in lieu of" the federal program. *Id.* The Fourth Circuit's opinion could prompt state legislatures to insulate recyclable waste from state regulation. Under RCRA section 3006(e), however, EPA must withdraw authorization from state programs that are not "consistent with" and "equivalent to" the federal RCRA program, which does regulate recyclables. 42 U.S.C. § 6926(e).

The factors relied upon by the Fourth Circuit in construing "discarded" are utterly inconsistent with EPA's construction of the term over years of enforcing and administering RCRA. EPA has repeatedly explained that, under its interpretation of "discarded":

> the *only* absolute bar on the Agency's authority to define recycled secondary materials as solid wastes is to "materials that are destined for immediate reuse in another phase of the industry's ongoing production process" and that have not yet "become part of the waste disposal problem."

61 Fed. Reg. 2338, 2341 (1996) (quoting *AMC II*) (emphasis

added).[9] As the U.S. Department of Justice wrote in its letter to the Fourth Circuit concerning rehearing in this case:

> Many spent, used, or worn products that contain hazardous substances are discarded when they have become unusable for the purpose for which they were manufactured and sent to sites for reclamation or other recycling.

App. 198.

The Fourth Circuit's opinion is a radical reinterpretation of a basic, jurisdictional concept that is inconsistent with EPA's interpretation and that will disrupt compliance with and enforcement of RCRA.

C. The Fourth Circuit's Opinion Is Contrary to the Fundamental Principles of CERCLA Liability.

The Fourth Circuit's use of subjective "factors" to evaluate "arranger" liability under CERCLA is contrary to the plain meaning and intent of CERCLA. It is also contrary to the very authorities upon which the court of appeals purportedly relies. CERCLA provides liability for those who arrange for the treatment or disposal of hazardous substances in order to ensure that "everyone who is potentially responsible for hazardous-waste contamination may be forced to contribute to the cost of cleanup." *United States v. Bestfoods*, 118 S. Ct. 1876, 1881 n.1 (quoting *Pennsylvania v. Union Gas Co.*, 491 U.S. 1, 21 (1989) (plurality opinion of Brennan, J.)).

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[9] *See also* 63 Fed. Reg. 42110, 42113 (1998), 63 Fed. Reg. 28556, 28580 (1998); 62 Fed. Reg. 26041, 26051 (1997); 60 Fed. Reg. 57747, 57752 (1995).

CERCLA's language and purpose establish the fundamental principle that the sale of material unfit for its original purpose is an arrangement for disposal. *See A & W Smelter and Refiners v. Clinton*, 146 F.3d 1107 (9th Cir. 1998) (holding that the sale of material no longer usable for a person's principal business triggers "arranger" liability under CERCLA); *cf. AM International v. International Forging Equipment Corp.*, 982 F.2d 989, 999 (6th Cir. 1993) (holding that there is no arrangement for disposal where material remains useful for its original intended purpose).

Where, as in this case, such material is subject to a "process. . . designed to change [its] physical . . . character . . . so as to render such waste . . . amenable for recovery," the sale is also an arrangement for treatment. CERCLA § 101(29), 42 U.S.C. § 9601 (29), RCRA § 1004(34), 42 U.S.C. § 6903 (34). In this case, it is undisputed that the scrap was unfit for its original purpose. App. 33, 36. At the foundry, the scrap was melted down in order to change its "physical character" and to render it "amenable for recovery." App. 35-36. Non-recoverable materials, including some of the lead, entered the environment. App. 23.

Contrary to the Fourth Circuit's opinion, none of the judicial decisions cited by that court supports a recycling exemption from CERCLA arranger liability. Moreover, the very decisions cited by the Fourth Circuit in this case consistently imposed liability on recyclers such as the respondents and exempted from liability only those who, unlike respondents, sold products useful for their original intended purposes without prior processing.

In *Cadillac Fairview*, cited by the Fourth Circuit,[10] the

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[10] *See* App. 14.

Ninth Circuit held rubber companies liable under CERCLA for sending unusable, contaminated styrene for processing and recycling, even though the contaminated styrene had "value on the market." *Cadillac Fairview v. United States*, 41 F.3d 562, 566 (9th Cir. 1994). The Ninth Circuit explained that the defendants were not manufacturers of contaminated styrene, which was merely a by-product of their rubber manufacturing business. *Id.* Likewise, in *Catellus*, also cited by the court of appeals,[11] the Ninth Circuit determined that sellers of scrap batteries for processing and recycling were potentially liable under CERCLA, notwithstanding the batteries' residual market value. *Catellus v. United States*, 34 F.3d 748 (9th Cir. 1994).

Nor does the Fourth Circuit's ruling find any support in *Florida Power & Light Co. v. Allis Chalmers Corp.*, 893 F.2d 1313 (11th Cir. 1990) (sale of newly manufactured transformers does not constitute disposal), *AM International v. International Forging Equipment Corp.*, 982 F.2d 989, 999 (6th Cir. 1993) (no arranger liability for the sale of a production facility where chemicals remaining therein were still useful for their original purpose), or in *3550 Stevens Creek Assoc. v. Barclays Bank*, 915 F.2d 1355, 1358 (9th Cir. 1990) (placement of asbestos as part of building structure does not constitute disposal). In each of those cases, unlike here, the exempted defendants were simply conveying materials that remained useful for their original purpose without any further processing.[12]

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[11] *See* App. 15.

[12] The Fourth Circuit misinterprets the rulings in these cases in other respects as well. The *Catellus* court neither discussed the parties' "intent" nor otherwise focused on "the intent of parties to sale" (App. 14-15), except to note that the waste at issue, which the court held would trigger CERCLA liability, was "intended for recycling." *Catellus*, 34 F.3d at 753. The *Stevens Creek* court did not even purport to consider arranger liability

D. The Fourth Circuit's Decision Impairs EPA's Ability to Clean Up Existing Superfund Sites and Will Lead to More Superfund Sites in the Future.

The Fourth Circuit's narrow view of CERCLA arranger liability is likely to cause severe damage to this important federal program. The court's recycling loophole to CERCLA liability will frustrate the law's overriding objectives of achieving expeditious cleanup and of assigning liability to all parties, like respondents, who shared the benefits of economic activity associated with the environmental contamination now requiring cleanup. Even worse, the court of appeals' ruling threatens to promote the development of more Superfund sites by allowing recycling, resource recovery, and reclamation activities to escape RCRA regulation in the first instance.

The Fourth Circuit's decision constrains EPA's ability to require generators to clean up the numerous other Superfund sites across the nation that are extensively contaminated by recycling processes. Indeed, the Fourth Circuit's decision has caused EPA to suspend its order requiring the respondent railroads to contribute to the cleanup in this very case. App. 200-201. Given the possibility of escaping liability altogether under the Fourth Circuit's subjective factors, fewer generator defendants will be willing to agree with EPA to undertake cleanups. Moreover, owner/operator parties will be more reluctant to agree to perform cleanups because it will be more difficult for them to spread cleanup costs among other parties

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under CERCLA section 107(a)(3) at all, but instead addressed only prior owner and operator liability under CERCLA section 107(a)(2). App. 14; *Stevens Creek*, 915 F.2d at 1358. Moreover, in *AM International*, the Sixth Circuit did not consider whether the chemicals at issue were "contained when sold." App. 16; *AM International v. International Forging Equipment Corp.*, 982 F.2d 989, 999 (6th Cir. 1993).

who profited from the economic activity that caused the contamination.

This stifling of CERCLA enforcement is no small matter. As the Department of Justice emphasized in its letter to the Fourth Circuit on petition for rehearing, "[n]umerous Superfund sites on the National Priorities List in need of clean up (40 C.F.R. Part 300, Appendix B) are sites of former reclamation and other recycling activities." App. 198. Indeed, thirteen of the fifty worst sites on CERCLA's National Priority List are the result of recycling-related activities.[13] Among the 1,211 Superfund sites, 239, or twenty percent, were created by activities related to recycling, including unregulated recycling and unregulated disposal of recycling residues.[14] Moreover, forty-four states have at least one Superfund site caused by activities related to recycling.[15] EPA has concluded that "recycling operations account for some of the most notorious hazardous damage incidents." 48 Fed. Reg. 14472, 14474, 14505 (1983) (summarizing, in Appendix B, damage incidents involving the recycling of hazardous wastes).

With its newly created notion of the meaning of "discard," the Fourth Circuit has caused the very problem that EPA has sought to avoid during the past two decades. Because those who arrange for their materials to be recycled will, under the Fourth Circuit's reading, often not be subject to arranger liability under CERCLA section 107(a)(3), they will have no

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[13] Hearing of the Transp. and Hazardous Materials Subcomm. of the House Energy and Commerce Comm., FED. NEWS SERVICE, March 16, 1992 (102d Cong., 2d Sess., Testimony of Richard Fortuna, Exec. Dir. of the Haz. Waste Treatment Council).

[14] *Id.*

[15] *Id.*

economic incentive to ensure that those wastes are responsibly managed. The upshot will be more sites contaminated with hazardous substances requiring cleanup. Both RCRA and CERCLA will fail in their shared missions to safeguard health and the environment.

II. The Court Should Review the Fourth Circuit's Decision in Order to Resolve Conflict Between the Circuits.

A. The Fourth Circuit's Holding That Scrap Materials Destined for Recycling Are Not "Discarded" Under RCRA Contradicts Decisions of the D.C. and Eleventh Circuits.

The Fourth Circuit's subjective and aberrant multi-factor analysis for determination of whether material is "discarded" directly conflicts with the holdings of the D.C. and Eleventh Circuit Courts of Appeal.

The D.C. Circuit has long deferred to EPA in holding that materials destined for recycling are "discarded" unless they are "destined for beneficial reuse or recycling in a continuous process by the generating industry itself." *See American Mining Congress v. United States EPA*, 907 F.2d 1179, 1186 (D.C. Cir. 1990) (*AMC II*); *see also American Petroleum Inst. v. United States EPA*, 906 F.2d 729, 741 n.16 (D.C. Cir. 1990) (whether a "method of waste treatment . . . results in the production of something of value, namely, reclaimed metals" is "immaterial" to whether the substance being treated is waste under RCRA); *Shell Oil v. United States EPA*, 950 F.2d 741, 756 (D.C. Cir. 1991) ("EPA acted reasonably in incorporating resource recovery within [RCRA's] regulatory definition of treatment"). In *AMC II*, the D.C. Circuit deferred to EPA's listing of various materials generated from a metal smelting operation as hazardous waste because materials are "discarded" unless they are "immediately reused in another phase of the industry's

ongoing production process." *AMC II*, 907 F.2d at 1186.

The Eleventh Circuit also has deferred to EPA in holding that materials destined for recycling are "discarded" even if they have value for recycling. *See United States v. ILCO*, 996 F.2d 1126, 1131 (11th Cir. 1993). In *ILCO*, lead parts destined for recycling were "discarded" although the lead parts were "valuable feedstock." *Id.* In deferring to EPA's interpretation of "discarded," the Eleventh Circuit held that the lead parts' "secondary character as recyclable material is irrelevant" to whether they are "discarded." *Id.* at 1132.

In addition, the Eleventh and Second Circuits have recognized that Congress intended for "discarded material" to include "not only the waste by-products of the nation's manufacturing processes . . . but also the products themselves once they have served their intended purposes and are no longer wanted by the consumer." *ILCO*, 996 F.2d at 1132 (quoting H.R. Rep. No. 1491, 94th Cong., 2d Sess. 2 (1976), reprinted in 1976 U.S.C.C.A.N. 6238, 6240); *Connecticut Coastal Fishermen's Assoc. v. Remington Arms Co., Inc.*, 989 F.2d 1305 (2d Cir. 1993) (same). In *Connecticut Coastal*, the Second Circuit reviewed EPA's determination that the materials at issue, lead shot, were "discarded" and therefore solid waste under RCRA. The Second Circuit deferred to EPA's reasonable interpretation that the materials were discarded because they had been left to accumulate and no longer served their original intended purpose. *Connecticut Coastal*, 989 F.2d at 1316.

Here, the railroads' scrap was not immediately recycled by the railroads themselves. Instead, when the scrap metal parts could no longer serve their original purpose, they were accumulated by the railroads and then transported miles away to the foundry, which processed the scrap. App. 22. Both the Fourth Circuit's decision that the respondents' scrap was not "discarded" based on subjective "factors" and the court's failure

to defer to EPA thus conflict with the decisions of other circuit courts of appeal and warrant certiorari review.

B. The Fourth Circuit's Opinion Contradicts the Fundamental Principle That the Sale of Material Unfit for Its Original Purpose Is an Arrangement for Treatment or Disposal Under CERCLA.

Whether a material is useful for its original purpose distinguishes "waste" from a "useful product" in determining arranger liability under CERCLA. This principle pervades the case law on this issue at both the appellate and district court levels.

The Ninth Circuit has held that material no longer usable for a person's principal business is a waste and that the sale of such material subjects that person to "arranger" liability under CERCLA. *See A & W Smelter and Refiners v. Clinton*, 146 F.3d 1107, 1998 U.S. App. LEXIS 13462 at *18 (9th Cir. 1998). In *A & W Smelter*, the substance at issue was ore that the smelter had stored in piles and had mixed with slag. *Id.* at *17. The Ninth Circuit held that "[i]f the ore was mixed with enough slag so that it was no longer usable for A&W's principal business, then it was waste" and the smelter would be liable under CERCLA. *Id.* at *18; *see also Louisiana-Pacific Corp. v. ASARCO, Inc.*, 24 F.3d 1565, 1575 n.6 (9th Cir. 1994) (distinguishing a person's "principal business products" from hazardous substances that trigger CERCLA liability).

All appellate decisions to reach this issue, including the decisions cited by the Fourth Circuit, have consistently imposed arranger liability on recyclers such as the respondents and protected from liability only those who sold products useful for their original intended purposes. *See, e.g., Cadillac Fairview v. United States*, 41 F.3d 562, 566 (9th Cir. 1994) (holding the defendant liable under CERCLA for sending unusable,

contaminated styrene for processing, even though the contaminated styrene had "value on the market"); *Catellus v. United States*, 34 F.3d 748, 752 (9th Cir. 1994) (holding sellers of scrap batteries for processing liable under CERCLA, despite the scrap batteries' value); *Florida Power & Light Co. v. Allis Chalmers Corp.*, 893 F.2d 1313, 1319 (11th Cir. 1990) (holding that manufacturer of new products was not liable); *AM International Inc. v. International Forging Equipment Corp.*, 982 F.2d 989, 999 (6th Cir. 1993) (finding no arranger liability for the sale of a production facility where the chemicals remaining therein were still useful for their original purpose).[16]

The Fourth Circuit's decision is thus contrary to those of other courts finding persons liable under CERCLA for transactions in which the material at issue was no longer useful for its original purpose. It is not disputed that the respondent railroads' scrap journal bearings were no longer useful for their original purpose. That is, of course, the very reason those bearings were sent to the foundry for recycling. The Fourth Circuit stands starkly alone in ruling that arranging for recycling of scrap metal does not constitute an arrangement for "disposal or treatment" of a hazardous substance under CERCLA section

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[16] The district courts also follow this principle. "Every court that has ruled on the issue has held that if a product has no value for the purpose for which it was manufactured and it contains a hazardous substance, then the sale is an arrangement to dispose of the hazardous substance." *Gould v. A & M Battery & Tire Serv.*, No. 3 CV-91-1714, 1996 U.S. Dist. LEXIS 11352 (M.D. Pa. July 15, 1996); *see also Ekotek Site PRP Comm. v. Self*, 881 F. Supp. 1516 (D. Utah 1995); *Chatham Steel Corp. v. Brown*, 858 F. Supp. 1130 (N.D. Fla. 1994); *California v. Summer del Caribe*, 821 F. Supp. 574 (N.D. Cal. 1993); *United States v. Summit Equip. & Supplies*, 805 F. Supp. 1422 (N.D. Ohio 1992); *Chesapeake & Potomac Tel. Co. v. Peck Iron & Metal Co.*, 814 F. Supp. 1269 (E.D. Va. 1992).

107(a)(3), 42 U.S.C. § 9607(a)(3).

In sum, plenary review by this Court is warranted because of the profound importance of the legal issues presented, the circuit conflict created by the Fourth Circuit's decision, and the Fourth Circuit's failure to defer to EPA's authoritative interpretation of the relevant statutory provisions. Because of the broad implications of the court of appeals' ruling for EPA's implementation of both CERCLA and RCRA and the government's stated interest in this case, the Court may wish to invite the views of the United States prior to acting on the petition.

CONCLUSION

For the foregoing reasons, the petition for a writ of certiorari should be granted.

Respectfully submitted,

Joseph G. Homsy*
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PUBLISHED

UNITED STATES COURT OF APPEALS

FOR THE FOURTH CIRCUIT

PNEUMO ABEX CORPORATION; WHITMAN CORPORATION; CITY OF PORTSMOUTH, VIRGINIA, a municipal corporation; PORTSMOUTH REDEVELOPMENT AND HOUSING AUTHORITY,	)	
Plaintiffs-Appellees,	)	
v.	)	
HIGH POINT, THOMASVILLE AND DENTON RAILROAD COMPANY,	)	No. 97-1593
Defendant-Appellant,	)	
NORFOLK SOUTHERN RAILWAY COMPANY; NORFOLK & WESTERN RAILWAY COMPANY,	)	
Defendants & Third Party Plaintiffs-Appellants,	)	
and	)	
CSX CORPORATION; ERIE LACKAWANNA, INCORPORATED; CONSOLIDATED RAIL CORPORATION; GREENLEASE HOLDING COMPANY; LAKE TERMINAL RAIL COMPANY; NEW YORK, SUSQUEHANNA & WESTERN RAILROAD COMPANY; USX CORPORATION; JOHN C. HOLLAND, JR.; CAMBRIA & INDIANA RAILROAD COMPANY; FLORIDA EAST COAST RAILWAY COMPANY,	)	
Defendants,	)	

CSX TRANSPORTATION, INCORPORATED; FLORIDA EAST COAST INDUSTRIES, INCORPORATED; FRUIT GROWERS EXPRESS COMPANY, INCORPORATED; PITTSBURGH & LAKE ERIE RAILROAD COMPANY, INCORPORATED; RICHMOND, FREDERICKSBURG & POTOMAC RAILROAD COMPANY, INCORPORATED; UNION RAILROAD COMPANY, INCORPORATED; BESSEMER AND LAKE ERIE RAILROAD COMPANY, INCORPORATED,

Defendants & Third Party Plaintiffs,

KAUFMAN & CANOLES, P.C.,

Party in Interest,

v.

THE RUNNYMEDE CORPORATION; HOLLAND INVESTMENT AND MANUFACTURING COMPANY, INCORPORATED; AMERICAN PREMIER UNDERWRITERS, INCORPORATED; WIMCO; WIMCO METALS, INCORPORATED; WILMAT HOLDINGS, INCORPORATED; TRIANGLE INDUSTRIES, INCORPORATED; ILLINOIS CENTRAL RAILROAD COMPANY,

Third Party Defendants.

VIRGINIA MANUFACTURERS ASSOCIATION; AMERICAN AUTOMOBILE MANUFACTURERS ASSOCIATION; INSTITUTE OF SCRAP RECYCLING INDUSTRIES, INCORPORATED,

Amici Curiae.

PNEUMO ABEX CORPORATION; WHITMAN CORPORATION; CITY OF PORTSMOUTH, VIRGINIA, A MUNICIPAL CORPORATION; PORTSMOUTH REDEVELOPMENT AND HOUSING AUTHORITY,

Plaintiffs-Appellees,

v.

CSX TRANSPORTATION, INCORPORATED; FRUIT GROWERS EXPRESS COMPANY, INCORPORATED,

Defendants & Third Party Plaintiffs-Appellants,

and

CSX CORPORATION; ERIE LACKAWANNA, INCORPORATED; CONSOLIDATED RAIL CORPORATION; GREENLEASE HOLDING COMPANY; HIGH POINT, THOMASVILLE AND DENTON RAILROAD COMPANY; LAKE TERMINAL RAIL COMPANY; NEW YORK, SUSQUEHANNA & WESTERN RAILROAD COMPANY; USX CORPORATION; JOHN C. HOLLAND, JR.; CAMBRIA & INDIANA RAILROAD COMPANY; FLORIDA EAST COAST RAILWAY COMPANY,

Defendants,

No. 97-1594

FLORIDA EAST COAST INDUSTRIES, INCORPORATED; NORFOLK SOUTHERN RAILWAY COMPANY, NORFOLK & WESTERN RAILWAY COMPANY; PITTSBURGH & LAKE ERIE RAILROAD COMPANY INCORPORATED; RICHMOND, FREDERICKSBURG & POTOMAC RAILROAD COMPANY, INCORPORATED; UNION RAILROAD COMPANY, INCORPORATED; BESSEMER AND LAKE ERIE RAILROAD COMPANY, INCORPORATED,

Defendants & Third Party Plaintiffs,

KAUFMAN & CANOLES, P.C.,

Party in Interest,

v.

THE RUNNYMEDE CORPORATION; HOLLAND INVESTMENT AND MANUFACTURING COMPANY, INCORPORATED; AMERICAN PREMIER UNDERWRITERS, INCORPORATED; WIMCO; WIMCO METALS, INCORPORATED; WILMAT HOLDINGS, INCORPORATED; TRIANGLE INDUSTRIES, INCORPORATED; ILLINOIS CENTRAL RAILROAD COMPANY,

Third Party Defendants.

VIRGINIA MANUFACTURERS ASSOCIATION; AMERICAN AUTOMOBILE MANUFACTURERS ASSOCIATION; INSTITUTE OF SCRAP RECYCLING INDUSTRIES, INCORPORATED,

Amici Curiae.

PNEUMO ABEX CORPORATION; WHITMAN CORPORATION; CITY OF PORTSMOUTH, VIRGINIA, A MUNICIPAL CORPORATION; PORTSMOUTH REDEVELOPMENT AND HOUSING AUTHORITY,

Plaintiffs-Appellants,

v.

HIGH POINT, THOMASVILLE AND DENTON RAILROAD COMPANY,

Defendant-Appellant,

CSX TRANSPORTATION, INCORPORATED; FRUIT GROWERS EXPRESS COMPANY, INCORPORATED; NORFOLK SOUTHERN RAILWAY COMPANY; NORFOLK & WESTERN RAILWAY COMPANY,

Defendants & Third Party Plaintiffs-Appellees,

and

CSX CORPORATION; ERIE LACKAWANNA, INCORPORATED; CONSOLIDATED RAIL CORPORATION; GREENLEASE HOLDING COMPANY; LAKE TERMINAL RAIL COMPANY; NEW YORK, SUSQUEHANNA & WESTERN RAILROAD COMPANY; USX CORPORATION; JOHN C. HOLLAND, JR.; CAMBRIA & INDIANA RAILROAD COMPANY; FLORIDA EAST COAST RAILWAY COMPANY,

Defendants,

No. 97-1599

FLORIDA EAST COAST INDUSTRIES, INCORPORATED; PITTSBURGH & LAKE ERIE RAILROAD COMPANY, INCORPORATED; RICHMOND, FREDERICKSBURG & POTOMAC RAILROAD COMPANY, INCORPORATED; UNION RAILROAD COMPANY, INCORPORATED; BESSEMER AND LAKE ERIE RAILROAD COMPANY, INCORPORATED,

Defendants & Third Party Plaintiffs,

KAUFMAN & CANOLES, P.C.,

Party in Interest,

v.

THE RUNNYMEDE CORPORATION; HOLLAND INVESTMENT AND MANUFACTURING COMPANY, INCORPORATED; AMERICAN PREMIER UNDERWRITERS, INCORPORATED; WIMCO; WIMCO METALS, INCORPORATED; WILMAT HOLDINGS, INCORPORATED; TRIANGLE INDUSTRIES, INCORPORATED; ILLINOIS CENTRAL RAILROAD COMPANY,

Third Party Defendants.

VIRGINIA MANUFACTURERS ASSOCIATION; AMERICAN AUTOMOBILE MANUFACTURERS ASSOCIATION; INSTITUTE OF SCRAP RECYCLING INDUSTRIES, INCORPORATED,

Amici Curiae.

Appeals from the United States District Court for the Eastern District of Virginia, at Norfolk. Raymond A. Jackson, District Judge. (CA-94-716-2)

Argued: Jan. 27, 1998.

Decided: April 29, 1998.

Before LUTTIG, Circuit Judge, GOODWIN, United States District Judge for the Southern District of West Virginia, sitting by designation, and MICHAEL, Senior United States District Judge for the Western District of Virginia, sitting by designation.

Reversed and remanded by published opinion, Senior Judge Michael wrote the opinion, in which Judge Luttig and Judge Goodwin joined.

COUNSEL

ARGUED: Kevin Allan Gaynor, VINSON & ELKINS, L.L.P., Washington, D.C., for Appellants. Joseph Gerard Homsy, ZEVNIK, HJORTON, GUIBORD & MCGOVERN, Chicago. Illinois, for Appellees. **ON BRIEF:** George C. Hopkins, S. Scott Gaille, VINSON & ELKINS, L.L.P., Washington, D.C.; Joseph M. Spivey, III, HUNTON & WILLIAMS, Richmond, Virginia, for Appellants. John W. Roberts, Sr., Lea D. Leadbeater, ZEVNIK, HORTON, GUIBORD & MCGOVERN, Chicago, Illinois; James A. Gorry, III, TAYLOR & WALKER, P.C., Norfolk, Virginia, for Appellees. Channing J. Martin, Christopher D. Pomeroy, WILLIAMS, MULLEN, CHRISTIAN & DOBBINS, Richmond, Virginia; Carol C. Wampler, VIRGINIA MANUFACTURERS ASSOCIATION, Richmond, Virginia;

Julie C. Becker, AMERICAN AUTOMOBILE MANUFACTURERS ASSOCIATION, Washington, D.C., for Amici Curiae Associations. J. Thomas Wolfe, R. Michael Sweeney, INSTITUTE OF SCRAP RECYCLING INDUSTRIES, INC., Washington, D.C., for Amicus Curiae Institute.

OPINION

MICHAEL, District Judge:

Since the enactment in 1980 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), litigation over the cost of clean up of polluted sites has grown steadily. The courts have struggled to interpret and refine the enforcement and liability scheme laid out by the Act. This case joins the growing number of suits raising questions about the limits of liability for environmental pollution.

Between 1927 and 1978, Pneumo Abex Corporation's predecessor, Abex Corporation, operated a railroad parts foundry in Portsmouth, Virginia ("the Foundry"). Pursuant to contracts for sale ("conversion agreements"), railroads shipped used journal bearings to the Foundry for processing into new journal bearings. Journal or wheel bearings are used on railroad cars to hold lubricating oil against the axle to reduce friction. They are comprised of a lead lining ("babbitt") and a bronze or brass[1]

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[1] Both bronze and brass are copper alloys, usually made with tin or zinc. Bronze is a somewhat stronger alloy.

"back." Pursuant to the conversion agreements, the railroads shipped the wheel bearings to the Foundry and received credit for the weight of wheel bearings against a purchase of new wheel bearings (after a deduction for weight attributed to dirt and grease). Among the sellers of journal bearings to the Foundry were the defendant-appellants: Norfolk Southern Railway Company, Norfolk & Western Railway Company, CSX Corporation, CSX Transportation, Incorporated, and Fruit Growers Express Company, Incorporated. These sellers were responsible for approximately 80.1% of journal bearings sold to the Foundry for reuse. Other sellers of wheel bearings settled with the defendants prior to trial.

Upon receipt, the Foundry heated the dirty wheel bearings in a low-temperature furnace to "sweat off" the dirt, grease, and any impurities and to separate the back from the lining. As the metal melted, impurities floated to the top and could be skimmed off. This slag was collected from the furnaces and placed on the back lot of the Foundry's property. The three furnaces used to heat metal at the Foundry also produced smoke and fumes. Employees were, at one point, required to wear air filters. A dust collector drew in the dust from the melting process and deposited it in large steel drums. These drums were also emptied of the dust onto the back lot.

After the Foundry closed in 1978, the EPA sampled the soil in the Foundry lot and, over the course of several years, found elevated levels of lead, zinc, copper, tin, and antimony in the soil (all metals that were used to create the wheel bearings). The EPA designated the site as a Superfund Site. Beginning in 1986, Abex began response activities at the site pursuant to state and federal EPA

orders. EPA estimates that the permanent remedy will cost at least $21 million. The current defendants and several other parties were contacted by the EPA as "potentially responsible parties" under the CERCLA.[2] While other potentially responsible parties cooperated with the EPA in clean up efforts, the defendants in the instant case refused to contribute to the response costs, asserting that they are not liable for the response costs under CERCLA. The plaintiffs sued for contribution under Sections 107 and 113 of CERCLA. The district court dismissed the 113 action as redundant. It then allocated responsibility and costs under Section 107. The defendants challenge the district court's finding that they are liable for the contamination of the site under CERCLA, that Pneumo Abex has standing to proceed under section 107, that section 107 is the proper vehicle for a suit for contribution by Pneumo Abex, and that the allocation of response costs is equitable.

STANDARD OF REVIEW

We review *de novo* the grant of summary judgment by the district court and the dismissal of the section 113 claim. *Shaw v. Stroud*, 13 F.3d 791, 798 (4th Cir. 1994); *West v. Clarke Murphy, Jr. Self-Employed Pension Plan*, 99 F.3d

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[2] While CERCLA does not define "potentially responsible party," the courts have understood it to refer to a party who may be covered by the statute at the time that said party is sued under the statute. *See, e.g., OHM Remediation Servs. v. Evans Cooperage Co., Inc.*, 116 F.3d 1574, 1582 (5th Cir. 1997); *Redwing Carriers, Inc. v. Saraland Apartments*, 94 F.3d 1489, 1496 (11th Cir. 1996).

166, 167 (4th Cir. 1996). We review for abuse of discretion the grant of standing to sue under Section 107 of CERCLA and the equity of the award. *United States v. R.W. Meyer, Inc.*, 932 F.2d 568, 571 (6th Cir. 1991); *Cox v. Shalala*, 112 F.3d 151 (4th Cir. 1997).

DISCUSSION

Covered Persons under CERCLA

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act to provide for the clean up of hazardous waste from polluted sites throughout the United States. Pub. L. No. 96-510, 94 Stat. 2767 (codified at 42 U.S.C. §§ 9601-9675 (1995)); *United Technological Corp. v. United States E.P.A.*, 821 F.2d 714, 717 (D.C.Cir. 1987). Congress amended CERCLA with the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. No. 99-499, 100 Stat. 1613, 1615 (codified as amended in scattered sections of 42 U.S.C.). The legislation, as amended, provides, first, a mechanism for clean up of sites polluted with hazardous waste and, second, a mechanism by which a governmental entity or private party may recover the cost of clean up from all parties responsible for the pollution of the site. 42 U.S.C. § 9607; 42 U.S.C. § 9613(f); *Walls v. Waste Resource Corp.*, 823 F.2d 977, 980-81 (6th Cir. 1987). The cost of cleaning a site permanently is called the "response cost." Under CERCLA four classes of "covered persons" may be liable for response costs:

(1) the owner and operator of a vessel or a facility,

> (2) any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of,
>
> (3) any person who by contract, agreement, or otherwise arranged for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances, and
>
> (4) any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities, incineration vessels or sites selected by such person, from which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance.

42 U.S.C. § 9607(a). The four categories of covered persons delineated by the statute reach back through the causal chain from those who ultimately dispose of a hazardous substance to those who transport and generate it. *OHM Remediation Servs., Inc. v. Evans Cooperage, Inc.*, 116 F.3d 1574, 1578 (5th Cir. 1997), *citing, B.F. Goodrich Co. v. Murtha*, 958 F.2d 1192, 1198 (2d Cir. 1992). Moreover, as *OHM Remediation Services* explains, "Because the Act imposes strict liability, *Bell Petroleum*, 3 F.3d [889,] . . . 897 [(5th Cir. 1993)], plaintiffs generally need not prove causation, only that the defendant is a 'covered person.' " 116 F.3d at 1578, *quoting, United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 721 (2d Cir. 1993).

The appellees in the case before the court contend that parties who arrange for the treatment of hazardous substances, whether or not such substances are waste, are covered persons who are liable under the statute. Appellants argue, on the other hand, that the statute encompasses only those parties who arrange for the treatment or disposal of hazardous substances which are also waste. The court finds that the appellees read the statute too broadly. Section 9601 of CERCLA states, "The term[ ] 'treatment' shall have the meaning provided in section 1004 of the Solid Waste Disposal Act [42 U.S.C.A. § 6903]."[3] 42 U.S.C. § 9601(29). The Solid Waste Disposal Act (SWDA) definition of "treatment" presupposes discard. SWDA states, "The term 'treatment,' when used in connection with hazardous waste, means any method, technique or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste nonhazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume." Had the authors of CERCLA intended *not* to adopt the presupposition of SWDA, they were certainly capable of defining "treatment" otherwise. However, as the legislature chose to use the SWDA definition of treatment, and the presupposition inherent in the definition, it is not the role of this court to substitute another definition. Therefore, "treatment . . . of hazardous substances" as used in CERCLA

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[3] This section also provides that the definitions of "disposal" and "hazardous waste" may be found in SWDA. However, as such definitions are not at issue in the instant case, the court restricts its analysis to the term "treatment."

refers to a party arranging for the processing of discarded hazardous substance or processing resulting in the discard of hazardous substances.

In determining whether a transaction was for the discard of hazardous substances or for the sale of valuable materials, courts focus on several factors: the intent of the parties to the contract as to whether the materials were to be reused entirely or reclaimed and then reused, the value of the materials sold, the usefulness of the materials in the condition in which they were sold, and the state of the product at the time of transferral (was the hazardous material contained or leaking/loose). *See, Florida Power & Light Co. v. Allis Chalmers Corp.*, 893 F.2d 1313, 1317 (11th Cir. 1990) (finding no liability based on the intent of the parties and the fact that transformers were a valuable commodity, despite the fact that transformers contained hazardous substances); *AM International Inc. v. International Forging Equipment Corp.*, 982 F.2d 989, 999 (6th Cir. 1993) (focusing on the value and usefulness of the materials sold and the intended purpose to find no liability for sellers of chemicals); *United States v. Petersen Sand & Gravel*, 806 F.Supp. 1346, 1354 (N.D.Ill. 1992) (focusing on the usefulness of the product, the valuable consideration, and the intent that the product would be entirely used up for the purpose for which it was sold to find no liability); *Stevens Creek v. Barclays Bank of California*, 915 F.2d 1355 (9th Cir. 1990) (focusing on constructive use of asbestos in construction of building to find no liability); *Cadillac Fairview v. United States*, 41 F.3d 562 (9th Cir. 1994) (holding seller of styrene liable because party's intent in transaction was for buyer to process styrene and remove hazardous materials from it so that styrene could

be reused); *Catellus v. United States*, 34 F.3d 748 (9th Cir. 1994) (focusing on intent of parties to sale of batteries to determine that seller might be liable). However, "there is no bright line between a sale and a disposal under CERCLA. A party's responsibility . . . must by necessity turn on a fact-specific inquiry into the nature of the transaction." *Petersen, supra*, 806 F.Supp. at 1354.

Careful consideration of the factors delineated by the case law and of the process of creating new wheel bearings from the used wheel bearings sent to the Foundry indicates that the conversion agreements between the Foundry and the appellants were not transactions for disposal. The used wheel bearings transported to the Foundry were dirty and broken when they arrived. Moreover, the bearings were melted down in a process which produced both dust and slag (both of which were dumped in the back lot with the sand at the location later found to be contaminated). However, slag and dust would be produced even if virgin materials were used to make the new bearings. Unlike the processing of styrene in *Cadillac Fairview v. United States*, 41 F.3d 562 (9th Cir. 1994), the removal of contaminants was not the purpose of the transaction in the instant case. The bearings were processed because they were worn out or broken. The removal of the dirt and grease was incidental to remolding new bearings, just as it would have been incidental to the molding of new bearings from virgin materials.

Moreover, the dirt and grease were not the hazardous materials, the metals themselves were. In this way, the case before the court more closely resembles cases in which a party sells to another a material which becomes

hazardous in its use, but is contained when sold. For example, in *AM International Inc. v. International Forging Equipment Corporation*, the Sixth Circuit held that the owner of chemicals did not "dispose" of the chemicals when they were sold in drums to the buyer who then allowed the building in which the drums were stored to deteriorate. 982 F.2d 989, 999 (6th Cir. 1993). Similarly, here, the hazardous substance – the metals – were in a contained form when delivered for sale.

The intent of both parties to the transaction was that the wheel bearings would be reused in their entirety in the creation of new wheel bearings. The Foundry paid the appellants for the bearings; the appellants did not pay the Foundry to dispose of unwanted metal. While there was a grease and dirt deduction taken from the price the Foundry paid for the used wheel bearings, that deduction was to account for weight, not reclamation costs. The Foundry refused to pay for any weight not attributable to the bearings themselves. The parties contemplated that the bearings were a valuable product for which the Foundry paid a competitive price. For these reasons, we hold that appellants are not "covered persons" under CERCLA.

Contribution Action Properly under Section 9613 or 9607

On remand, the district court, although it will dismiss the appellants from the suit, must apportion liability among the remaining parties to the suit. That apportionment process should be guided by section 9613 rather than section 9607. Section 9607 allows "any person" to recover all response costs from any responsible parties, whose liability is then generally joint and several. *OHM*

Remediation Servs., Inc. v. Evans Cooperage, Inc., 116 F.3d 1574, 1578 (5th Cir. 1997); *United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 268 (3d Cir. 1992); *Rumpke of Indiana, Inc. v. Cummins Engine Co., Inc.*, 107 F.3d 1235, 1240 (7th Cir. 1997); *United States v. Colorado & Eastern RR Co.*, 50 F.3d 1530, 1535 (10th Cir. 1995); *United Technologies v. Browning-Ferris Indus., Inc.*, 33 F.3d 96, 100 (1st Cir. 1994); *United States v. Rohm & Haas Co.*, 2 F.3d 1265, 1280 (3d Cir. 1993). Section 9613, added by SARA in 1986, creates a cause of action for contribution from "any *other* person who is liable or potentially liable." 42 U.S.C. § 9613(f)(1) (emphasis added). The courts have held consistently that section 9613 must be used by parties who are themselves potentially responsible parties. *See, New Castle County v. Halliburton*, 111 F.3d 1116, 1120 (3d Cir. 1997); *Redwing Carriers, Inc. v. Saraland Apartments*, 94 F.3d 1489, 1496 (11th Cir. 1996); *United States v. Colorado & Eastern R.R. Co.*, 50 F.3d 1530, 1536 (10th Cir. 1995); *United Technologies Corp. v. Browning-Ferris Indus., Inc.*, 33 F.3d 96, 99 (1st Cir. 1994); *Akzo Coatings, Inc. v. Aigner Corp.*, 30 F.3d 761, 764 (7th Cir. 1994); *Amoco Oil Co. v. Borden, Inc.*, 889 F.2d 664, 672 (5th Cir. 1989).[4] As the case before the court involves

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[4] Under section 9613, liability is allocated among other potentially responsible parties and the potentially responsible plaintiff "using such equitable factors as the court determines are appropriate." 42 U.S.C. § 9613(f)(1). *See also Rumpke of Indiana, [supra,]* 107 F.3d at 1240 (section 9613 allocates fault among potentially responsible persons); *Colorado & Eastern, [supra,]* 50 F.3d at 1536 & n. 5 (discussing equitable factors to be considered when resolving section 9613 claims)." *New Castle County, supra,* 111 F.3d at 1121-22. Unlike a section 9607 defendant, a section 9613 party need not demonstrate that the harm at the polluted site is divisible, he need only present

entirely potentially responsible parties, such parties must seek contribution under section 9613.

The opinion below is reversed and the case is remanded.

REVERSED AND REMANDED

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equitable considerations to guide the allocation of liability. *New Castle County, supra,* 111 F.3d at 1121 n. 6, *citing, Redwing Carriers, supra,* 94 F.3d at 1513.

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Norfolk Division

PNEUMO ABEX CORPORATION, *et al.*,

Plaintiffs,

v. CIVIL ACTION NO. 2:94cv716

BESSEMER AND LAKE ERIE
RAILROAD COMPANY, INC., *et al.*,

Defendants.

MEMORANDUM OPINION AND ORDER

(Filed Mar. 25, 1996)

INTRODUCTION

Plaintiffs initiated this action pursuant to sections 107 and 113 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. §§ 9607, 9613 (1988 & Supp. 1993), as amended by the Superfund Amendments and Reauthorization Act of 1986 ("CERCLA" or "the Act"), and the Declaratory Judgment Act, 28 U.S.C. § 2201(a) (1994). Plaintiffs seek recovery of costs allegedly incurred in responding to releases or threatened releases of allegedly hazardous substances at or from the Pneumo Abex Superfund Site ("Site").

In Conference Order No. 2, filed October 23, 1995, the Court recognized voluntary party organizations. These groups were the Railroad Defendants, the Landowner Defendants, the Miscellaneous Defendants, and the Remaining Defendants (those Defendants not in a group). Since the filing of the order, some of the parties have changed groups. The Court will recognize Defendant

Cambria and Indiana Railroad Company as a member of the Railroad Defendants,[1] and the Court now will recognize Defendant Trian Group, Limited Partnership as a member of the Miscellaneous Defendants. Therefore, there are no more Remaining Defendants. Also, on November 21, 1995, the Court dismissed, without prejudice, Railroad Defendant Florida East Coast Industries.

The Court ordered that the parties file all motions to dismiss and for summary judgment by January 8, 1996.[2] The Railroad Defendants filed a motion for summary judgment on January 9, 1996 on the issue of their liability under § 107(a)(3) of CERCLA.[3] On January 9, 1996, Defendant Richmond, Fredericksburg & Potomac Railroad Company ("RF&P") filed a motion for partial summary judgment on the issue of whether Plaintiffs may recover under § 107(a) or are limited to an action for contribution under § 113(f).[4] On January 30, 1996, Defendant RF&P supplemented its brief in support of the

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[1] Montour Railroad Company and Norfolk and Portsmouth Belt Line Railroad are no longer a part of the Railroad Defendants.

[2] The Court briefly extended this deadline because of inclement weather at the beginning of the year along the East Coast of the United States.

[3] The Miscellaneous Defendants joined this motion.

[4] Bessemer and Lake Erie Railroad Company, The Lake Terminal Railroad Company, Norfolk Southern Railway Company, Norfolk and Western Railway Company, Union Railroad Company, Inc., and the Miscellaneous Defendants joined this motion. Florida East Coast Railway Company and Highpoint, Thomasville & Denton Railroad Company filed similar motions and adopted RF&P's brief.

motion. The Court also considered the facts and arguments in this supplemental correspondence. On January 9, 1996, Defendants Bessemer and Lake Erie Railroad Company, The Lake Terminal Railroad Company, and Union Railroad Company, Inc. filed a motion for partial summary judgment regarding the liability of Plaintiffs Pneumo Abex Corporation, the City of Portsmouth, and the Portsmouth, Redevelopment and Housing Authority pursuant to § 107(a). Pneumo Abex Corporation and Whitman Corporation[5] filed a motion for summary judgment on January 11, 1996 on the liability of the Railroad Defendants,[6] Consolidated Rail Company, Greenlease Holding Company, and Trian Group, Limited Partnership[7] under § 107(a). The Court has received responses from all parties. The matters are now ripe for judicial determination.

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[5] In this opinion, the term "Plaintiffs" refers only to Pneumo Abex Corporation and Whitman Corporation unless otherwise indicated.

[6] Plaintiffs do not seek summary judgment against USX Corporation, Montour Railroad Company, and Norfolk and Portsmouth Belt Line Railroad. On March 5, 1996, Plaintiffs and USX Corporation filed a joint motion for the Court to accept a settlement between these parties. Montour Railroad Company and Norfolk and Portsmouth Belt Line Railroad are not Defendants in the Second Amended Complaint, but the Court listed them as Railroad Defendants.

[7] In Plaintiffs' motion for summary judgment regarding liability under § 107 of CERCLA, Plaintiffs refer to all these defendants collectively as the Railroad Defendants, although the appellation is inaccurate for the Court's purposes.

For the reasons that follow, the Court **GRANTS** Plaintiffs' motion for summary judgment against the Railroad Defendants remaining in this litigation and Consolidated Rail Corporation. Furthermore, the Court **DENIES** the Railroad Defendants' motion for summary judgment and Richmond, Fredericksburg & Potomac Railroad Company's motion for partial summary judgment.

I. FACTUAL BACKGROUND

From 1927 to 1978, the predecessors of Plaintiff Pneumo Abex Corporation ("Abex") operated a railroad parts foundry in Portsmouth, Virginia. Railroad companies sold used scrap journal bearings[8] and other scrap metal railcar and engine parts to the foundry. Abex alleges that Defendants or their corporate predecessors are all former customers of the foundry. Railroad companies accumulate the journal bearings which they have taken out of service and then sell them to foundries such as Abex. The foundry processed the parts and produced new parts for the railroads. The Association of American Railroads ("AAR") established specifications for journal bearings. Railroad inspectors determine when railroad companies need to replace journal bearings because they are broken or worn.

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[8] A journal bearing is a metal part designed to hold oil against railroad car axles for lubrication and consists of two parts, a back and a babbitt. The back contains tin, lead, zinc, copper, nickel and antimony. The babbitt is the soft metal lining, composed of mostly lead, that makes direct contact with the axle. The babbitt wears down over time as a result of friction.

To produce new parts for its customers, Abex placed the broken or worn journal bearings into a pot or furnace and heated them to remove any remaining portions of the lead linings, dirt, and grease. Abex next placed the bearings in a furnace to melt them down for re-casting. Abex added tin, lead, zinc, and copper to the molten scrap to comply with the AAR's specifications. Both of these furnaces were vented to the outside. (Pls.' Mem. at 6-7.) This process produced emissions of fine particulate material. (Record of Decision Amendment, prepared by the United States Environmental Protection Agency ("EPA"), August 1994 [hereinafter "ROD Amend."] at 12.) Abex poured the molten material into sand molds to form the backs of journal bearings. After the backs hardened and Abex machined them, Abex lined the backs with the scrap lining metal (babbits) that it had separated from the scrap journal bearings initially. (Pls.' Mem. at 7.) Abex reused the sand until the sand lost its capacity to form molds. After washing the sand to reclaim bits of brass, Abex placed the sand on the back lot of its property. (*Id.*)

According to the "Memorandum in Support of the Motion of Plaintiffs Pneumo Abex Corporation and Whitman Corporation for Summary Judgment" ("Plaintiffs' Memorandum"), the EPA began testing the soil at the Site in the mid-1980s and found that it contained elevated levels of the metals contained in journal bearings. More specifically, the EPA found lead, copper, zinc, nickel, tin and antimony. (Pls.' Mem. at 11.) In 1986 and 1992, the EPA ordered removal of soil from the Site pursuant to § 106 of CERCLA; Plaintiffs Pneumo Abex and Whitman incurred the removal costs. The EPA notified several of the Railroad Defendants and Plaintiffs that

they were potentially responsible parties under § 107(a) and invited them to negotiate a consent degree. (Pls.' Mem. at 12, Ex. 18.) Only Plaintiffs negotiated a decree, and the United States and Plaintiffs lodged the Consent Decree with this Court on January 4, 1996.

The Consent Decree provides that Abex will finance and perform all of the work at the Site with the exception of a few tasks to be performed by Plaintiffs, the City of Portsmouth (the "City") and the Portsmouth Redevelopment and Housing Authority (the "PRHA"). (Consent Decree at 13, 18.) The work that Abex will perform/supervise and finance is essentially all the remedial work at the Site. In their respective areas of competency, the City and the PRHA, *inter alia*, will assist Abex administratively in the remediation, rezone the area surrounding the Site from residential to commercial or light industrial, purchase or acquire through condemnation some residences, and build a permanent City facility in the area. (*Id.* at 18-20.) Within thirty (30) days of lodging the Consent Decree, Abex agrees to "establish and maintain financial security in the amount of $20,000,000 (the approximate current estimated cost of the remedy) in the form of a Letter of Credit." (*Id.* at 48.) Within thirty (30) days of the effective date of the decree, Pneumo Abex agrees to reimburse the United States for past response costs in the amount of $1,170,131.37. (*Id.* at 55.) Abex also agrees to reimburse the United States for all future response costs not inconsistent with the National Contingency Plan. (*Id.*)

II. LEGAL STANDARD

Summary judgment is appropriate when the court determines that no genuine issue of material fact exists and that the moving party is entitled to judgment as a matter of law. FED. R. CIV. P. 56(c). Once a party has properly filed evidence supporting the motion for summary judgment pursuant to Federal Rule of Civil Procedure 56(c), the burden shifts to the nonmoving party to set forth specific facts showing genuine issues for trial. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 322-24 (1986); *accord Sylvia Dev. Corp. v. Calvert County, Md.*, 48 F.3d 810, 817 (4th Cir. 1995). "[T]he plain language of Rule 56(c) mandates the entry of summary judgment . . . against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." *Celotex Corp.*, 477 U.S. at 322. The court must view the record as a whole and in the light most favorable to the nonmoving party. *Terry's Floor Fashions, Inc. v. Burlington Industries, Inc.*, 763 F.2d 604, 610 (4th Cir. 1985). It must draw any permissible inference from the underlying facts. *Tuck v. Henkel Corp.*, 973 F.2d 371, 374 (4th Cir. 1992), *cert. denied*, 113 S. Ct. 1276 (1993). However, it need consider only reasonable inferences from the evidence. *Thompson Everett, Inc. v. Nat'l Cable Advertising, L.P.*, 57 F.3d 1317, (4th Cir. 1995) (citing *Ford Motor Co. v. McDavid*, 259 F.2d 261, 266 (4th Cir.), *cert. denied*, 358 U.S. 908 (1958)).

III. DISCUSSION

The motions for summary judgment essentially raise two issues. First, Plaintiffs and Defendants move for summary judgment on the issue of whether Defendants are liable as arrangers, often also known as generators, of the disposal or treatment of hazardous substances under § 107(a)(3). The second issue, which Defendants raise, is whether Plaintiffs, as potentially responsible parties ("PRPs"), may maintain an action for recovery under § 107(a) or whether they are limited to an action for contribution under § 113(f).

To establish a prima facie case for cost recovery under CERCLA, Plaintiffs must prove the following four elements:

> (1) that the site in question is a "facility" as defined in 42 U.S.C. § 9601(9); (2) that the defendant is a responsible person under § 9607(a); (3) that the release or threatened release of a hazardous substance has occurred; and (4) that the release or threatened release has caused the plaintiff to incur response costs.

Chesapeake & Potomac Tele. Co. v. Peck Iron & Metal Co., 814 F. Supp. 1269, 1274 (E.D. Va. 1992) (citing *Ascon Properties, Inc. v. Mobil Oil Co.*, 866 F.2d 1149, 1152-53 (9th Cir. 1989)). Defendants have not challenged the existence of three of the essential elements for recovery of costs under CERCLA. All parties agree that the Site is a "facility" as defined in § 101(9) of CERCLA, that the release or threatened release of hazardous substances has occurred, and that Plaintiffs have incurred response costs. However, most of the motions for summary judgment debate the second element, which requires Plaintiffs to prove that

Defendants are responsible persons under § 107(a) of CERCLA. Plaintiffs allege that the Railroad Defendants and others are liable as arrangers of the disposal or treatment of hazardous substances, namely, worn journal bearings and castings.

A. Defendants' Liability as Arrangers/Generators

Section 107 of CERCLA establishes strict liability for arrangers of the disposal or treatment of hazardous substances. *United States v. Monsanto Co.*, 858 F.2d 160, 166-67 (4th Cir. 1988), *cert. denied*, 490 U.S. 1106 (1989). Subsections 107(a)(3) and (4) of CERCLA provide in relevant part as follows:

> any person who by contract, agreement, or otherwise arranged for the disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances, . . .
>
> . . . shall be liable for –
>
> > all costs of removal or remedial action incurred by the United States Government or a State or an Indian tribe not inconsistent with the national contingency plan; [and]
> >
> > any other necessary costs of response incurred by any other person consistent with the national contingency plan. . . .

CERCLA §§ 107(a)(3), (4)(A), (4)(B), 42 U.S.C. §§ 9607(a)(3), (4)(A), (4)(B) (1988 & Supp. 1993). The

Railroad Defendants contend they are not liable under § 107 for three reasons. First, they argue that did not arrange for "disposal or treatment" of worn journal bearings and castings. Second, they argue that the worn bearings and castings were "useful products" and thus could not serve as the basis of liability under CERCLA. Lastly, they argue that the worn bearings and castings were not "hazardous substances." The Court views these three reasons, however, as one basic argument about the nature of the transactions between the Railroad Defendants and Abex. Essentially the Railroad Defendants are arguing that they sold useful products to Abex and thus the bearings and castings should not be deemed "hazardous substances." The Railroad Defendants similarly argue that the sale properly may not be characterized as "disposal or treatment" because they sold useful, raw materials to Abex for use in its manufacturing process. The Court addresses these arguments in the reverse order from the order presented by the Railroad Defendants, and, as the Court explains below, it finds this reasoning unpersuasive.

1. Hazardous Substances

The Court first determines whether the worn journal bearings and castings were hazardous substances. CERCLA defines "hazardous substance" to include, *iter* [sic] *alia*, "any element, compound, mixture, solution, or substance designated pursuant to section 9602 [CERCLA § 102] of this title." CERCLA § 101(14)(B). Section 102 of CERCLA provides that the Administrator of the EPA

shall promulgate regulations designating hazardous substances, and these designations are listed in a table in Title 40, Section 302.4 of the Code of Federal Regulations. The journal bearings that the Railroad Defendants allegedly sold[9] to Abex contained the following substances: tin, lead, zinc, copper, nickel and antimony. (RR Defs.' Br. at 6-7.) Lead, copper, zinc, and antimony are listed as hazardous substances in 40 C.F.R. § 302.4 (1995). Thus Plaintiffs argue that because the journal bearings contained these hazardous substances, the journal bearings themselves were hazardous substances within the meaning of sections 102 and 107 of CERCLA. The Railroad Defendants urge the Court to reject Plaintiffs' theory that a substance is hazardous because it *contains* hazardous substances. Plaintiffs and the Railroad Defendants cite several cases in support of their respective positions; however, none of them are directly on point. The United States Court of Appeals for the Fourth Circuit has not addressed this issue.

The Railroad Defendants cite *B.F. Goodrich Co. v. Murtha*, 840 F. Supp. 180 (D. Conn. 1993), in support of their position that the journal bearings were not hazardous substances. In that case, the court found that the defendant who disposed of scrap tires was not liable under CERCLA because "[n]othing offered shows that HS [hazardous substances] in tires contributes to the conditions

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[9] As the Court discusses below, only Miscellaneous Defendants Greenlease Holding Company and Trian Group, Limited Partnership resisted Plaintiffs' motion for summary judgment by asserting the existence of a genuine issue of material fact concerning whether they sold scrap materials to the Site.

at either site which give rise to CERCLA liability." *Id.* at 186. The Fourth Circuit has addressed this prong of the Railroad Defendants' argument, which is one essentially of causation. The language of the §107(a)(3) "does not mean that the plaintiff must trace ownership of each generic chemical compound found at a site. Absent proof that a generator defendant's specific waste remained at a facility at the time of release, a showing of a chemical similarity between hazardous substances is sufficient." *Monsanto Co.*, 858 F.2d at 169. Although the court in *B.F. Goodrich Co.* granted another defendant's motion for summary judgment, this case does not directly advance the Railroad Defendants' position. In granting that motion for summary judgment, the court did not address whether the substance in question was a hazardous substance, because there was a lack of proof that the substance even contained any hazardous substances. *See B.F. Goodrich Co.*, 840 F. Supp. at 187-89. Thus the court did not have before it a case such as the instant one, in which substances, namely, journal bearings, that contain hazardous substances, contributed to the contamination at the Site.

The Railroad Defendants also cite *United States v. New Castle County*, 769 F. Supp. 591 (D. Del. 1991), in support of their position. In that case the court held the following:

> [I]f a defendant's waste is a non-hazardous substance, a plaintiff must show that the defendant's waste is capable of generating or releasing a hazardous substance at the site in

> order to show that the defendant's waste "contains" a hazardous substance within the meaning of CERCLA.

Id. at 597. The court further explained that in order for the plaintiffs to prevail, they must show that it was more probable than not that the hazardous substance migrated from the "non-hazardous substance"[10] *under the conditions existing at the site. Id.* For the court, the question was not whether a substance was hazardous by virtue of containing hazardous substances. Instead the court employed the "likelihood of release" test, by determining whether a party could be held liable without proof that those constituent parts could have contributed to the contamination at the site under the known conditions. *See id.* at 598 (finding that even if the non-hazardous substance contained a hazardous substance, plaintiffs did not prove that under the conditions at the site, the hazardous substance would dissociate from the non-hazardous substance). By contrast, in the case *sub justice*, the Railroad Defendants have not contested Plaintiffs' allegations that the constituent parts of the bearings contributed to the contamination of the site in the instant case. The Railroad

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[10] The court in *New Castle County* used the term "non-hazardous substance," and this Court uses the term in its discussion of the case for consistency. The term, however, carries a perhaps inadvertent legal conclusion. The substance in the case is non-hazardous in the sense that it is not designated by name by any of the sources enumerated in CERCLA § 101(14). Yet the actual question before this Court is whether a substance which contains a material that the statute designates as hazardous converts that "non-hazardous substance" into a hazardous one for the purpose of determining liability under CERCLA.

Defendants imply that Pneumo Abex has supplied inconsistent answers to questions concerning the processes which led to the contamination of the site. (RR Defs.' Br. at 10-11). However, the Railroad Defendants do not challenge Plaintiffs' allegations that the hazardous substances contained in the journal bearings were part of these processes, which lead to the contamination. (*See id.* at 11 ("[A]ny releases from the Foundry came from Abex's manufacturing processes and not from the worn bearing or castings before their use in these processes.").) Plaintiffs merely must show that "a generator defendant's waste was shipped to a site and that hazardous substances similar to those contained in defendant's waste remained present at the time of the release." *Monsanto Co.*, 858 F.2d at 179 n.15. With the aid of the Record of Decision Amendment prepared by the EPA, Plaintiffs have made this showing. Accordingly, the Court finds the worn journal bearings and castings were hazardous substances for the purpose of determining liability under CERCLA.

2. Useful Products

The Railroad Defendants further argue that the worn journal bearings and castings were not hazardous substances because they were "useful products." The Railroad Defendants cite *Douglas County v. Gould, Inc.*, 871 F. Supp. 1242 (D. Neb. 1994), in support of their position. The defendant in that case operated a spent lead acid battery reclamation facility. He removed lead plates from spent batteries and sold the lead plates to one of the former owners of the contaminated site which used the

lead plates in its secondary smelting operation. The plaintiff, the current owner of the site, sued the defendant because he allegedly arranged for the disposal of the lead plates. The court in *Douglas County* framed the issue as whether

> the sale of lead plates by a party *whose business it is to reclaim them from batteries,* constitutes an "arrangement for disposal" under CERCLA. . . . [A]n arrangement for disposal occurs when a party merely wants to get rid of a substance as opposed to convey a useful product.

Douglas County, 871 F. Supp. at 1246 (emphasis added). The court distinguished between the potential liability of a seller of whole spent batteries and a seller of reclaimed lead from such batteries. *Id.* at 1247 (discussing *Catellus Dev. Corp. v. United States,* 34 F.3d 748 (9th Cir. 1994)). The court stated, in dicta, that "[h]ad . . . [the defendant's] reclamation site been contaminated, no doubt the battery suppliers would have been liable." *Id.* at 1247.

In the instant case, the Railroad Defendants and others were not sellers of reclaimed material; they were not in the business of selling worn journal bearings and castings, unlike the defendant in *Gould* who was in the business of selling reclaimed lead plates. The Railroad Defendants and other Defendants are more closely likened to the battery suppliers in *Douglas County.* The Railroad Defendants and others perhaps were fortunate to find a buyer for the bearings and castings after they no longer could be used in the capacity for which they had been manufactured. Yet the facts demonstrate the Railroad Defendants' and others' primary objective was "to get rid of a substance[, namely, the worn parts] as

opposed to convey a useful product." *Id.* at 1246. The Court recognizes that other district courts have addressed this issue and come to slightly different conclusions. *See, e.g., United States v. Petersen Sand & Gravel, Inc.*, 806 F. Supp. 1346, 1353-55 (N.D. Ill. 1992) (finding defendants not liable who sold fly ash, a byproduct of coal combustion, "for valuable consideration for the purpose of manufacturing road base, and for manufacturing road base alone"). This Court does not find that these decisions effectuate CERCLA's goals in aggressively addressing the release or threatened release of hazardous substances.

In evaluating this argument, the Court finds instructive the case of *Chesapeake & Potomac Tele. Co. v. Peck Iron & Metal Co.*, 814 F. Supp. 1269, 1274 (E.D. Va. 1992), where the court analyzed the argument regarding the sale of spent lead acid batteries. The defendants in that case contended that they sold raw materials for use in another company's manufacturing process and thus properly could not be characterized as having arranged for disposal of hazardous substances. In rejecting this argument the court remarked,

> If the defendants had sold unused, and still usable, batteries to an entity which used them in their business and then drained battery acid and lead from them – causing damage to the environment – their argument would be meritorious. But the only remaining "use" of the batteries sold by the generator/recycler defendants . . . was that lead, a hazardous substance, could be reclaimed from them. As batteries, per se, they had no use.

Id. at 1275. In the instant case, the Railroad Defendants and others sold worn journal bearings and castings, not new ones. Their only remaining use was to serve as a part of a process which led to environmental damage. Thus, the Court finds that the "useful product" argument in this case lacks merit.

3. Disposal or Treatment

Finally, the Court determines whether the sale of the worn journal bearings and castings was an arrangement for disposal or treatment within the meaning of CERCLA. Plaintiffs contend that the sale of the worn parts was an arrangement for both disposal and treatment. Under § 101(29) of CERCLA, "disposal" and "treatment" have the meanings provided for in § 1004 of the Solid Waste Disposal Act ("SWDA"), 42 U.S.C. § 6903 (1988), as amended by the Resource Conservation and Recovery Act of 1976 ("RCRA"). The SWDA defines "treatment" when used in connection with "hazardous waste" as the following:

> any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste nonhazardous, safer for transport, amendable [sic] for recovery, amenable for storage, or reduced in volume.

SWDA § 1004(34). In this instance, the Court finds that the sale and subsequent processing of the worn bearings fall within the definition of treatment "so as to render

such waste . . . reduced in volume." The Railroad Defendants and others sold worn journal bearings and castings to Abex after these Defendants could no longer use the materials for the purposes for which they were intended. Abex cleaned these materials, melted them down, added various metals, and poured the molten material into sand molds to create new journal bearings. The sand molds eventually became laden with heavy metals such, as lead, antimony, copper, tin, and zinc. (ROD Amend. at 12.) After the sand molds lost their capacity to serve as molds, Abex disposed of the sand on the back lot of the Site. (Pls.' Mem. at 7-8.) Thus, the processing at the Site reduced the waste in volume from whole, worn bearings and castings to residual amounts of the constituent elements. *Cf. United States v. Pesses*, 794 F. Supp. 151, 157 (W.D. Pa. 1992) (finding that processing of scrap materials to make alloys by melting, shearing, cleaning, crushing, sawing, and other means constituted treatment under CERCLA).

Alternatively, the Railroad Defendants and others arranged for treatment that rendered the constituent elements of the worn journal bearings amenable for recovery. Abex removed the lining from the backs, removed dirt and grease, melted the backs, added tin, lead, copper, and zinc to the molten material, and poured the molten material into molds to make new bearings. This process constituted treatment within the meaning of CERCLA. *See, e.g., Ekotek Site PRP Comm. v. Self*, 881 F. Supp. 1516, 1528 (D. Utah 1995) (finding process where used oil was heated, mixed with sulfuric acid, and blended with various additives as treatment which rendered waste amenable for recovery); *Pesses*, 794 F. Supp. at 157.

The Railroad Defendants and others argue that the importation of the term "treatment" from the Solid Waster Disposal Act necessarily also imports the concept of "hazardous waste." They further argue that because § 1004(5) of the SWDA defines "hazardous waste" as "a solid waste or combination of solid wastes," the Court must find that the hazardous substance was a solid waste to hold them liable for the arrangement of treatment of a hazardous substance. The Court, however, does not find this argument compelling nor consistent with the language of CERCLA. "The drafters of CERCLA appear to have referred to sections 6903(3) and 6903(34) of the SWDA only to define the actions of 'disposal' and 'treatment,' not to define the objects of those actions, the materials to be disposed of or treated." *California v. Summer Del Caribe, Inc.*, 821 F. Supp. 574, 579 (N.D. Cal. 1993) (citation omitted). If the Court were to adopt the Railroad Defendants' statutory interpretation, there would exist no plausible reason to use the term "hazardous substance" in § 107 of CERCLA when Congress already had defined the term "hazardous waste" in the SWDA and opted to import several definitions from the SWDA into CERCLA.

> If the court were to accept defendant's definition of "disposal", however, there could be no "disposal of a hazardous substance" since the definition of "disposal" would be at odds with the definition of "hazardous substances". Sections of the CERCLA statute regarding the disposal of hazardous substances, therefore, would have to be either ignored or read to mean only disposal of hazardous wastes.

CP Holdings, Inc. v. Goldberg-Zoino & Assocs., 769 F. Supp. 432, 437 (D.N.H. 1991). Congress easily could have

imported the definition of "hazardous waste" into CERCLA. Congress did not, however, and the Court must assume that Congress meant to describe two different concepts or bases for liability by its use of two different terms: hazardous wastes and hazardous substances. *Compare Summer Del Caribe*, 821 F. Supp. at 579 ("Given the distinct purposes of the acts [the SWDA, preventive and CERCLA, curative], it follows that they cover different materials.") (citing *B.F. Goodrich Co. v. Murtha*, 958 F.2d 1192, 1202 (2d Cir. 1992) *with Moore v. Harris*, 623 F.2d 908, 914 (4th Cir. 1980) ("The rebuttal presumption of formal consistency states that use of different language creates the inference that Congress meant different things. . . . However, where the statutory purpose and legislative history establish that no difference was in fact intended, the presumption is rebutted.")

Alternatively, the Court also finds that the Railroad Defendants and others arranged for the disposal of hazardous substances. The SWDA defines "disposal," in connection with "hazardous waste," as the following:

> the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

SWDA § 1004(3). By selling the worn parts to Abex, the Railroad Defendants and others arranged for their ultimate disposal, either through the emission of particulate matter from the furnaces at the foundry or by dumping, on the back lot of the Site, the sand once used as molds.

Cf. Chesapeake & Potomac Tel. Co., 814 F. Supp. at 1275 ("[T]he generator/recycler defendants made the decision to sell spent lead acid batteries to . . . a facility that contains lead. Thus, they arranged for the treatment and disposal of the lead, and fall well within the ambit of Section 107(a)."). Although the Railroad Defendants and others may not have played a direct role in transporting the worn parts or in the process that lead to the ultimate disposal, they made the "crucial decision" to sell the worn parts to a facility that processed hazardous substances. *See, e.g., Chatham Steel Corp. v. Brown*, 858 F. Supp. 1130, 1142-43 (N.D. Fla. 1994) (citing *United States v. A & F Materials*, 582 F. Supp. 842 (S.D. Ill. 1984)); *Allied Towing v. Great Eastern Petroleum Corp.*, 642 F. Supp. 1339, 1350 (E.D. Va. 1986) (same). Accordingly, the Court finds that the Railroad Defendants remaining in the case and Consolidated Rail Corporation arranged for the disposal of hazardous substances by selling worn journal bearings and castings to Abex.

The Court has found that the worn journal bearings and castings were hazardous substances and not useful products. Furthermore, the Court has determined that the Railroad Defendants and others arranged for the disposal and treatment of these hazardous substances. With the exception of Defendants Greenlease Holding Company and Trian Group, Limited Partnership, whom the Court discusses below, no Defendant against whom Plaintiffs seek summary judgment has set forth "specific facts showing genuine issues for trial" concerning whether they are responsible persons under § 107(a). Thus, the

Court finds as a matter of law that the Railroad Defendants who remain party to this litigation and Consolidated Rail Corporation are responsible persons under § 107(a) of CERCLA and thus are liable for costs of response incurred by Plaintiffs. Accordingly, the Court **GRANTS** Plaintiffs' motion for summary judgment against these Defendants.

B. PRP's Recovery of Costs under § 107 versus § 113

The second major issue presented by the motions for summary judgment is whether Plaintiffs as PRPs can maintain a suit for cost recovery under § 107(a)(4)(B) of CERCLA or whether their cost recovery action must be brought under § 113(f)(l). Defendant Richmond, Fredericksburg & Potomac Railroad Company ("RF&P") made a motion for partial summary judgment on this issue.[11] Defendant RF&P argues that determination of this issue is important "because it affects the nature of liability that may be imposed, the burden of proof, and statute of limitations that apply." (RF&P's Br. at 1.) Following its examination of the Consent Decree in this case, RF&P supplemented its brief with a letter to the Court to argue that "[t]he 'contribution protection' provided by

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[11] The Miscellaneous Defendants, Bessemer and Lake Erie Railroad Company, Inc., Florida East Coast Railway Company, High Point, Thomasville, and Denton Railroad Company, Norfolk Southern Railway Company, Norfolk & Western Railway Company, The Lake Terminal Rail Company, and Union Railroad Company, Inc. joined RF&P's motion for partial summary judgment.

the decree will work a grave injustice on the defendants *if* you allow the plaintiffs to obtain a joint and several judgment for all cost under CERCLA § 107." (RF&P's Let. at 1-2.) Beyond these issues, the Court recognizes that Defendants fear that Plaintiffs will experience a windfall if allowed to recover all costs, including its proportional share, under § 107.

The United States Court of Appeals for the Fourth Circuit has not addressed whether a PRP can maintain an action under § 107 *and* section 113 of CERCLA. RF&P argues that prior to the enactment of § 113(f) courts recognized an implied right of contribution under § 107, but in enacting § 113(f), Congress demonstrated its intent that the new section provide the only basis of cost recovery for PRPs. In support of their interpretation of the statute, RF&P argues that all six United States Courts of Appeals that have considered the issue have determined that PRPs are limited to actions for contribution under § 113.[12] (RF&P's Br. at 16-17.) RF&P also argues that the majority of United States District courts have held the same. (RF&P's Br. at 19-20.) However, the Court does not find that the weight of authority is as great as RF&P concludes. For example, in *Amoco Oil Co. v. Borden, Inc.*, the court proceeded under § 113 but did not expressly

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[12] *Control Data Corp. v. S.C.S.C. Corp.*, 53 F.3d 930 (8th Cir. 1995); *United States v. Colorado & E. R.R.*, 50 F.3d 1530 (10th Cir. 1995); *United Technologies Corp. v. Browning-Ferris Indus*, 33 F.3d 96 (1st Cir. 1994), *cert. denied*, 115 S. Ct. 1176 (1995); *Azko Coatings, Inc. v. Aigner Corp.*, 30 F.3d 761 (7th Cir. 1994); *Dant & Russell, Inc. v. Burlington N. R.R. (In re Dant & Russell, Inc.)*, 951 F.2d 246 (9th Cir. 1991); *Amoco Oil Co. v. Borden, Inc.*, 889 F.2d (5th Cir. 1989).

rule out the possibility of a PRP proceeding under § 107. 889 F.2nd 664 (5th Cir. 1989). Nothing in the decision indicates that either party raised the issue. *Cf. Dant & Russell, Inc. v. Burlington N. R.R. (In re Dant & Russell, Inc.)*, 951 F.2d 246 (9th Cir. 1991). Examining the other four opinions which RF&P cites, the Court does not find their reasoning persuasive.

Furthermore, the United States Supreme Court casts doubt upon the conclusion that PRPs may not recover under § 107. In *Key Tronic Corp. v. United States*, the Supreme Court deciding the issue of whether attorney's fees were recoverable costs, stated that "the statute [CERCLA] now expressly authorizes a cause of action for contribution in § 113 and impliedly authorizes a similar and somewhat overlapping remedy in § 107." 114 S. Ct. 1960, 1965-66 (1994).

Nothing on the face of the statute indicates that an arranger/generator is liable under § 107 *only* to the United States, a state, an Indian tribe, or any other "innocent person." The statute specifically provides that an arranger/generator is liable to *any other person* who has incurred any other necessary costs of response, consistent with the national contingency plan. CERCLA § 107(a)(4)(B).

Again, the Court finds *Chesapeake & Potomac Tele. Co. v. Peck Iron & Metal Co.*, 814 F. Supp. 1269, 1277 (E.D. Va. 1992), instructive. In that case the district court found that nothing in the statute precluded a PRP from initiating cleanup and suing to recover its costs under § 107. In addressing the concerns of the defendants in that case that the plaintiff would be able to benefit unjustly, the

court reassured the defendants that because it would retain jurisdiction over the case throughout the contribution phase, it would ensure equitable apportionment.

> [T]he Court addresses this concern not by ignoring the plain language of CERCLA and precluding C&P [the plaintiff, PRP] from maintaining its cost recovery action, but by imposing joint and several liability on the defendants only for those response costs that are apportioned to the defendants, as a group, in this case – exclusive of the costs attributable to C&P. At the contribution phase of this proceeding, the Court will, as a first cut at apportioning liability, determine a "Plaintiff's share" and a "Defendants' share."

Id. at 1277-78. This Court agrees in large part with the court's interpretation of the statute in *Chesapeake and Potomac Tele. Co.*

The Court concludes that it is appropriate to permit Plaintiffs to seek recovery under § 107. However, the Court likewise finds it appropriate to require Plaintiffs to pay its equitable portion of the cleanup costs. In allowing Plaintiffs to proceed under § 107 in this case, the Court is able to accomplish several of the statute's goals at once. First, the Court preserves the statute's incentives for PRPs to settle and settle early. In settling with the United States through the Consent Decree, Plaintiffs have avoided the costs of litigation with the Government. Furthermore, in allowing Plaintiffs to proceed under § 107, Defendants are faced with joint and several liability if the Court determines that the harm is indivisible. *United States v. Monsanto Co.*, 858 F.2d 160, 171 (4th Cir. 1988), *cert. denied*, 490 U.S. 1106 (1989) (citing *New York v. Shore Realty*, 759 F.2d 1032, 1042 n.13 (2d Cir. 1985); *United*

States v. ChemDyne, 572 F. Supp. 802, 810-11 (S.D. Ohio 1983)). The burden rests with Defendants to prove that the harm is divisible and to provide the Court with a rationale for apportionment. *Compare id.* at 172 (citing *ChemDyne*, 572 F. Supp. at 810) *with* CERCLA § 113(f) (which the Railroad Defendants suggest should place the burden of proof upon Plaintiffs as parties seeking contribution) *and United States v. Colorado & E. R.R.*, 50 F.2d 1530, 1526 (10th Cir. 1995) (citations omitted). The Court in the instant case will apportion liability by first determining "Plaintiffs' share." Although the Court will not allow Plaintiffs to recover the entire cost of cleanup, Plaintiffs' share will not include any "orphan shares." For the purposes of this opinion, an orphan share is defined as any portion of liability that is not attributable to Plaintiffs or an available PRP. A PRP is unavailable if it is not present in the litigation for whatever reason. The Court also deems any PRP that is insolvent as being unavailable, despite being a party to this litigation. Consequently, Defendants are liable for any orphan shares.

For the foregoing reasons, the Court **DENIES** Richmond, Fredericksburg & Potomac Railroad company's motion for partial summary judgment, which seeks to limit Plaintiffs to an action for contribution under § 113(f)(1) of CERCLA.

Having determined that Plaintiffs may proceed under § 107(a), the Court finds that Plaintiffs' claims under § 113(f)(1) (Count II) are no longer necessary. Accordingly, the Court **DISMISSES** Plaintiffs' claims pursuant to § 113(f)(1) of CERCLA.

C. The Motion for Partial Summary Judgment by Defendants Bessemer and Lake Erie Railroad Company, The Lake Terminal Railroad Company, and Union Railroad Company, Inc. – Plaintiffs' Liability under § 107

Defendants Bessemer and Lake Erie Railroad Company, The Lake Terminal Railroad Company, and Union Railroad Company, Inc. move this Court pursuant to Rule 56(c) of the Federal Rules of Civil Procedure to find Plaintiffs Pneumo Abex Corporation, the City of Portsmouth, Virginia, and the Portsmouth Redevelopment and Housing Authority liable under § 107(a) of CERCLA.[13] In view of the Court's decision to require Plaintiffs to pay an equitable portion of the cleanup costs it is not necessary to address this motion for partial summary judgment.

D. Greenlease Holding Company's Opposition to Plaintiffs' Motion for Summary Judgment

On January 22, 1996, Greenlease Holding Company ("Greenlease") submitted a memorandum in opposition to Plaintiffs' motion for summary judgment to find the Railroad Defendants and the Miscellaneous Defendants liable under § 107(a) of CERCLA. In addition to joining the arguments set out in the Railroad Defendants' motion for summary judgment, Greenlease argues that "there is no evidence in the record to support the plaintiff's bold assertion that Greenlease was a customer of the Foundry. . . . " (Greenlease Mem. at 4.) Greenlease cites the deposition of Mr. Elmer Oakes, who was employed at the

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[13] The Miscellaneous Defendants joined this motion.

foundry for approximately twenty-two (22) years. The quoted passages indicate that Mr. Oakes knew that Greenlease was a customer of one of the plants *but not a customer of the plant in Portsmouth.* (*Id.* at 3-4 (citing Oakes Dep. at 552).) In its memorandum, Greenlease states that "Greenville Steel Car Company is the predecessor in interest to Greenlease for purposes of this litigation." (*Id.* at 3 n.2). Greenlease also argues that it was "unable to discern a single document referring to Greenville." (*Id.* at 4 n.3.) The Court's review of Exhibit 8 of Plaintiffs' Memorandum found a "Record of Metal Received" which names Greenville Steel Car Company as the originator of the metal. (Pls.' Ex. 8.) Thus, Greenville appears to be a customer who sold worn bearings to Abex. Greenlease further argues, however, that at most, such documentation would "create a genuine issue of material fact when contrasted with Mr. Oakes' testimony." (Greenlease Mem. at 4 n.3.) Although Mr. Oakes testified at his deposition that the records in Exhibit 8 were the records of the Portsmouth facility, (Oakes Dep. at 589-90), his earlier testimony contradicts the inference to be drawn that the record concerning Greenlease means that Greenlease sent scrap materials to the Site. Thus, there remains a genuine issue of material fact concerning whether Greenlease is a PRP. Accordingly, the Court **DENIES** Plaintiffs' motion for summary judgment against Greenlease Holding Company.

E. Trian Group, Limited Partnership's Opposition to Plaintiffs' Motion for Summary Judgment

On January 22, 1996, Trian Group, Limited Partnership ("Trian") filed a memorandum in opposition to

Plaintiffs' motion for summary judgment. Trian is a successor in interest to Central Railroad Company of New Jersey ("Central Railroad"). Trian argues that the Court should not grant summary judgment against it because of the existence of "factual question as to whether Central Railroad actually sent used journal bearings to the Portsmouth Foundry." (Trian Mem. at 3.) In other words, Trian disputes that it is a PRP.

Trian cites that testimony of Mr. Oakes at his deposition which may indicate that in 1961 Central Railroad sent its scrap journal bearings to Abex's Meadville Pennsylvania foundry and not the Portsmouth foundry. (*Id.* at 4-6 (citing Oakes Dep. at 105-106, 216-221, 563 and referring to Railroad Defendants' Ex. 6).) Mr. Oakes testified that Central Railroad was one of the Meadville foundry's customers at that time. (Oakes Dep. at 217.) Later in the deposition, Mr. Oakes testified that he remembered that the Portsmouth foundry received scrap journal bearings form Central Railroad, probably during the 1960s or 1970s. (Oakes Dep. at 415-16). Exhibit 8 also includes documents which indicate that in 1967 Abex received scrap journal bearings from Central Railroad, but the records do not indicate which facility received the scrap. (Pls.' Ex. 8.)

Just as with Greenlease Holding Company, the Court is unable to conclude on the record before it that no genuine of issue of material fact exists concerning whether Trian is a PRP. Consequently, the Court **DENIES** Plaintiffs' motion for summary judgment against Trian Group, Limited Partnership.

CONCLUSION

The Court finds that the Railroad Defendants remaining in the litigation and Consolidated Rail corporation are arrangers of the disposal and treatment of hazardous substances for which Plaintiffs have incurred response costs at the Site. Thus, these defendants are liable to Plaintiffs under § 107(a) of CERCLA. For the foregoing reasons, the Court **GRANTS** Plaintiffs' motion for summary judgment against the above-named Defendants but **DENIES** Plaintiffs' motion for summary judgment against Greenlease Holding Company and Trian Group, Limited Partnership. The Court **DENIES** the Railroad Defendants' motion for summary judgment. The Court also **DENIES** Richmond, Fredericksburg & Potomac Railroad Company's motion for partial summary judgment. The Court **DEFERS** ruling upon the motion for partial summary judgment of Bessemer and Lake Erie Railroad Company, The Lake Terminal Railroad Company, and the Union Railroad Company, Inc. The Court also **DISMISSES** Count II of Plaintiffs' complaint, which seeks recovery under § 113(f)(1) of CERCLA.

The Clerk is **DIRECTED** to send a copy of this order to counsel for the parties.

It is so **ORDERED**.

/s/ Raymond A. Jackson
UNITED STATES DISTRICT JUDGE

Norfolk, Virginia
March 25, 1996

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Norfolk Division

PNEUMO ABEX CORPORATION, *et al.*,

Plaintiffs,

v. **CIVIL ACTION NO. 2:94cv716**

BESSEMER and LAKE ERIE RAILROAD COMPANY, INC., *et al.*,

Defendants.

MEMORANDUM OPINION AND ORDER

(Filed Sep. 12, 1996)

INTRODUCTION

Plaintiffs initiated this action in 1994 pursuant to sections 107 and 113 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9607, 9613 (1994), as amended by the Superfund Amendments and Reauthorization Act of 1986 ("CERCLA" or "the Act"), and the Declaratory Judgment Act, 28 U.S.C. § 2201(a)(1994). Plaintiffs seek recovery of costs allegedly incurred in responding to releases or threatened releases of hazardous substances at or from the Pneumo Abex Superfund Site ("Site") in Portsmouth, Virginia. Plaintiffs also seek a declaratory judgment that Defendants are liable for the costs of implementing the permanent remedy at the Site. The Site, designated by the United States Environmental Protection Agency (the "EPA") as Operable Unit 1 ("OU1"), is the area within a radius of 700 feet of Pneumo Abex Corporation's ("Pneumo Abex") former foundry, and is divided into four quadrants.

By order filed March 25, 1996, the Court found the Railroad Defendants remaining in the litigation and Consolidated Rail Corporation liable as generators under § 107(a) of CERCLA. The Court also dismissed Plaintiffs' claims under § 113 of CERCLA as unnecessary because the Court had ruled that they could proceed under § 107 even though they are potentially responsible parties ("PRPs"). The Court held a six-day bench trial to determine the allocation of liability among the parties. The parties filed post-trial briefs, as directed, on June 12, 1996. This matter is now ripe for judicial determination.

I. FACTUAL BACKGROUND

Plaintiffs Pneumo Abex, the City of Portsmouth (the "City"), and the Portsmouth Redevelopment and Housing Authority (the "PRHA") own property within the Site. Plaintiff Whitman Corporation is the former parent company of Abex Corporation, the predecessor of Pneumo Abex. Whitman Corporation has been reimbursing Pneumo Abex for its environmental liability since Whitman Corporation sold Pneumo Abex in 1988. (R. at 230-31.) Most of the Defendants in this case were customers of Pneumo Abex's foundry in Portsmouth, Virginia ("Defendants I") and sent worn journal bearings to the foundry to be "converted" into new journal bearings. (See March 25, 1996 Memorandum Opinion and Order for further explanation.) Plaintiffs also sued Defendants Holland Investment and Manufacturing Company, Inc., John C. Holland, Jr., and Runnymede Corporation (collectively known as "the Landowner Defendants") as landowners within the Site.

According to the EPA, response activity began at the Site in 1986 when the EPA identified high lead concentrations. (Record of Decision Amendment, prepared by the United States Environmental Protection Agency, August 1994 [hereinafter ROD Amend.] at 2.) Pursuant to the Consent Order of August, 1986, Pneumo Abex excavated and removed contaminated soil at the Site. (*Id.*) In October of 1989, Pneumo Abex entered into an administrative order on consent with the Virginia Department of Waste Management ("VDWM") to perform the Remedial Investigation/Feasibility Study ("RI/FS") under the VDWM's supervision. (Stip. ¶ 23.) Pneumo Abex completed the RI/FS and submitted the final report to the VDWM in February of 1992. (Stip. ¶ 24.) Pursuant to the EPA's unilateral administrative order of March, 1992, Pneumo Abex excavated and removed additional contaminated soil. (ROD Amend. at 2.) However, Pneumo Abex did not complete the excavation and removal of contaminated surface soil because some residents wished to remain in place for the long-term remediation. In September of 1992, the EPA and the Commonwealth of Virginia published a Record of Decision ("1992 ROD") with the final remedy. (*Id.*) On October 19, 1993, Pneumo Abex submitted proposed changes to the 1992 ROD based upon new information from the City on proposed plans for zoning and land-use, as well as new institutional controls on future excavation within the Site. (*Id.* at 2-3.) The EPA subsequently amended the 1992 ROD and published in August of 1994 the Record of Decision Amendment ("Amended ROD"). In December of 1995, the EPA issued the Explanation of Significant Differences ("ESD") which again revised the permanent remedy. (Pls.' Br. at 10.)

In January, 1993 and December, 1994, during these removal activities, the EPA notified, *inter alia*, Defendants I and Plaintiffs that they were PRPs under § 107(a), (Stip. ¶¶ 29, 30), and invited them to negotiate a consent degree.[1] Plaintiffs were the only parties to negotiate a consent decree with the United States. In a separate action, the United States and Plaintiffs herein lodged the Consent Decree with the Court on March 4, 1996, and the Court entered it on April 25, 1996. *United States v. Pneumo Abex Corp.*, Civ. A. No. 2:96cv27 (E.D. Va.).

On May 6, 1996, the EPA issued a unilateral administrative order pursuant to § 106(a) of CERCLA to Defendants I. (Pls.' Ex. 446; R. at 508-09, 533-34.) The order requires Defendants I to contribute to the permanent remedy at the Site. Section 106(a) of CERCLA allows for the issuance of an order when "there may be an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from a facility." CERCLA § 106(a). The Court has jurisdiction to grant relief "as the public interest and the equities of the case may require." *Id.* Furthermore § 106 provides that

> any person who, without sufficient cause, willfully violates, or fails or refuses to comply with, any order . . . under subsection (a) of this section may, in an action brought in the appropriate

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[1] Defendants remaining in the litigation adduced testimony to suggest that the EPA never "invited" them to enter into a consent decree. (R. at 504-07.) As the Court explains below in its discussion of Plaintiffs' Share and Defendants' Share, the explanation proffered for Defendants' failure to enter into a consent decree is unpersuasive.

> United States district court to enforce such order, be fined not more than $25,000 for each day in which such violation occurs or such failure to comply continues.

CERCLA § 106(b)(1). To date, the EPA has not petitioned the Court to enforce the order.

Subsequent to the Court's ruling of March 25, 1996 concerning liability, Plaintiffs and a number of Defendants entered into settlement negotiations. Defendants remaining at the conclusion of the trial were CSX Transportation, Inc., Fruit Growers Express Company, Inc., Norfolk Southern Railway Company, Norfolk and Western Railway Company, and High Point, Thomasville and Denton Railroad Company ("Remaining Defendants"). Norfolk Southern Railway Company is a subsidiary of Norfolk Southern Corporation. Norfolk and Western Railway Company is a subsidiary of Norfolk Southern Railway Company. Finally, High Point, Thomasville & Denton Railroad Company is an affiliate of Norfolk and Western Railway Company. The Court refers to these related entities simply as "Norfolk Southern," unless otherwise indicated. CSX Transportation, Inc. and Fruit Growers Express Company, Inc. are subsidiaries and/or affiliates of CSX Corporation. The Court refers to these entities separately, although witnesses may have referred to them simply as "CSX." All other Defendants settled with Plaintiffs ("Settling Defendants"), and the Court dismissed Settling Defendants in orders filed May 9, 1996 and September 12, 1996.

II. DISCUSSION

The parties stipulated that the 1992 ROD estimated the cost of the clean-up remedy at the Pneumo Abex site to be $31,962,923.00. The Amended ROD estimated the cost of the remedy to be $31,507,670.00. Finally, the ESD estimated the cost to be $21,000,000.00. (Stip. ¶ 31.) The parties also stipulated that Pneumo Abex has incurred response costs at the Site and that Defendants have not. (Stip. ¶¶ 34, 35.) Thus, the questions remaining are 1) which of the costs Plaintiffs allegedly have incurred in connection with the Site are recoverable as response costs and 2) what portion of those costs Remaining Defendants must pay.

Plaintiffs presented proof of their alleged costs as follows:

1)	Oversight by the EPA –	$1,740,195.71
2)	The City's costs –	112,034.00
3)	The PRHA's costs –	93,405.85
4)	Services related directly to excavation and removal at the Site –	5,334,509.00
	TOTAL	**$7,280,144.56.**

Of the total amount, Pneumo Abex allegedly has incurred and paid $7,074,704.00.

A. Divisibility of the Harm

The United States Court of Appeals for the Fourth Circuit has held that "[w]hile CERCLA does not mandate the imposition of joint and several liability, it permits it in

cases of indivisible harm." *United States v. Monsanto Co.*, 858 F.2d 160, 171 (4th Cir. 1988), *cert. denied*, 490 U.S. 1106 (1989). In this case, Remaining Defendants bear the burden of either establishing that the harm is divisible or that there exists a reasonable basis for apportionment, based upon the contribution of each Defendant, of liability for a single harm. *Id.* at 171-72. In their post-trial brief, Remaining Defendants argue that they have established that "the area of environmental harm at the Site attributable to Foundry manufacturing activities is clearly divisible from the area of environmental harm not related to the Foundry." (Defs.' Br. at 3.) Although faced with the possibility that the Court could find the harm indivisible, in their post-trial briefs Remaining Defendants do not present the alternative argument that there exists a rational basis for apportionment of liability.

1. Sources of Contamination

One of Plaintiffs' experts, John Rhodes, of GEO Engineering, who managed the Site from the beginning of the cleanup activities, testified that his firm tried to identify several sources of lead contamination. The firm considered air emissions and sand from the foundry, lead paint, automobile emissions, ash from an incinerator, and dredge fill material. (R. at 33.) However, the firm was unable to identify reliably sources other than foundry-related ones through the use of its chosen method: canonical analysis. (R. at 33-34.) Canonical analysis is a statistical procedure used tc created a "fingerprint" of known contaminants. (R. at 37.) GEO Engineering gathered soil and dust samples throughout the Site to try to

match those samples to the fingerprints, samples of previously identified contaminants. GEO Engineering analyzed the samples for lead content and other metals. (*Id.*; 1994 ROD at 17.) However, GEO Engineering was ultimately unable to fingerprint non-foundry-related sources of lead.

Remaining Defendants also presented the expert testimony of Dr. Swiatoslav Vladmir Kaczmar[2] in an attempt to establish that there existed several sources of contamination in addition to the sand from the foundry. (R. at 629-776.) Dr. Kaczmar drew most of his conclusions from his review of the work performed and reports generated by GEO Engineering (*see, e.g.*, R. at 686, 716); Dr. Kaczmar nor his firm collected any soil samples from the Site. (R. at 727.) In general, Remaining Defendants tried to establish that ash from the City's incinerator, dredge spoils, demolition waste, and miscellaneous fill contributed to the contamination of the Site.[3] For example, Dr. Kaczmar

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[2] Dr. Kaczmar has a bachelor's degree in chemistry, biology, and water science from Northern Michigan University. (R. at 629.) He holds a master's degree from Northern Michigan University in chemical limnology, the study of the "fate and transport" of chemicals in aquatic systems. *Id.*) He also has a doctorate degree from Michigan State University in environmental toxicology which includes analytical chemistry, human toxicology, and fate and transport. (R. at 630.) He has performed approximately ten (10) Remedial Investigations and Feasibility Studies as a project manager and supervised approximately 100.

[3] Plaintiffs objected to much of the testimony or opinions offered by Dr. Kaczmar on two separate grounds. First Plaintiffs objected to the nature and scope of his proposed testimony because Dr. Kaczmar was not a geologist or an engineer, having

used several demonstrative exhibits to establish the pattern of development and demolition with the Site from 1889 to 1964. (R. at 647-661.) He testified that demolition occurred in all four quadrants of the Site, (R. at 661), and that the demolition left residuals of lead. (R. at 635.) Similarly, on cross-examination, a witness from the PRHA testified that demolition had occurred in quadrants II and IV. (R. at 893-97.) Dr. Kaczmar also testified that there existed *no* basis for linking air emissions to the residuals of lead detected at the Site outside of the foundry-area, (R. 676), yet later testified that the releases from the foundry were only insignificant sources of contamination. (R. at 716.)

The focal point of Dr. Kaczmar's testimony was that the use of canonical analysis, as a method for identifying the materials from the foundry outside of Pneumo Abex's lot, could not be supported by the information in the Remedial Investigation report. (R. at 663.) He emphasized the portion of the Remedial Inv stigation report which explained the "opportunity for false positives" and the problem of relying upon "single observations" of foundry-related lead contamination without a sufficient number of neighboring samples al o being classified as

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held himself out previously as a toxicologist. (R. at 633-40.) The Court allowed Dr. Kaczmar to testify and indicated that it would give the testimony due weight, recognizing the witness's limitations. (R. at 640.) Second, Plaintiffs objected on the basis that Dr. Kaczmar did not disclose the offered opinions or bases thereof in his written report made pursuant to Rule 26(a)(2)(B) of the Federal Rules of Civil Procedure. Upon reviewing Dr. Kaczmar's report, the Court sustained many of these objections. (*E.g.*, R. at 670-75, 699-700, 701, 704-07, 708-09, 735-36.)

foundry-related. (R. at 686.) Dr. Kaczmar testified that GEO Engineering did not have enough reference points or fingerprints of known contaminants, thus leaving great opportunities for misclassification of samples. (R. at 687.) He testified that GEO Engineering would have needed "hundreds" of reference points to make canonical analysis an appropriate methodology at the Site. (R. at 690.) In response to questions from the Court, however, Dr. Kaczmar testified that for the last classification or canonical analysis he performed for polycholorinated biphenyls (PCBs), he used only six (6) reference points. (R. at 767.) He also testified that GEO Engineering used four to six reference points in this case. (R. at 768, 776.) Dr. Kaczmar also testified to examples within the RI/FS of misclassifications within the reference groups such as a known sample of auto emissions being classified as paint, miscellaneous fill, and sand from the foundry. (R. at 697.) He further testified that the misclassifications were "a very strong basis for just throwing the canonical analysis right out, at least the application here." (*Id.*)

2. Containment of Sand and Air Emissions from the Foundry

At trial, Plaintiffs presented the first evidence to suggest divisibility of harm. John Rhodes testified that he made the argument to the EPA that portions of Quadrant II did not indicate foundry-related contamination and that Quadrant III did not show any indication of foundry-related contamination. (R. at 42-43.) Thus he argued "that at least a portion of quadrants II and III could be carved out of the site as not related to the foundry." The EPA

rejected this argument within the 700-foot circle, (R. at 44), and found that "it is reasonable to assume the foundry contributed, either through disposal of waste sand or through air deposition, to lead contamination found in these areas." (Pls.' Ex. 322, 1992 ROD at 101.)

Remaining Defendants also presented testimony from Mr. Elmer Oakes,[4] a former employee and plant manager of Pneumo Abex, that to the best of his recollection, he only saw sand removed from the back lot twice, "a couple of pick-up loads to use for fill." (R. at 942, 955.) However, he also testified that there was no fence around the back lot. (R. at 942.) Mr. Rhodes testified that one mechanism for moving the contaminated sand "that was of concern throughout the study [the RI/FS] and remains a concern is wind blowing of foundry sand." (R. at 221.) Pneumo Abex's lot is within the 700-foot circle designated as the Site, but the Site includes more than Pneumo Abex's lot. Remaining Defendants thus argue that they are not liable for costs associated with the cleanup of the entire Site, but merely the cleanup within the Pneumo Abex's lot.

Dr. Kaczmar also concluded that there existed "no likelihood of foundry sand being outside the foundry areas." (R. at 706.) He reached this conclusion based upon the following:

1) the information in the Remedial Investigation report that the foundry's used sand was exclusively disposed of, by wheelbarrow,

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[4] Mr. Oakes was employed at the Site from 1946 until its closing in 1978. (R. at 930-31.)

within the north lot of the foundry, (R. at 706-07),

2) his analysis of aerial photographs which depicted two major thoroughfares on either side of the foundry that, in his opinion, would have precluded anyone from a wheelbarrow full of material to one of the residential areas, (R. at 707,) and

3) GOE Engineering's estimate that over the fifty years of the foundry's operation, the foundry would have generated 140,000 cubic feet of waste sand and that amount "could fit very easily" within the foundry's lot. (R. at 708.)

Dr. Kaczmar also testified about "grain size analysis," which involves taking soil samples and sifting the samples through a series of sieves with each sieve having progressively smaller openings so that the particles or grains separate by size. (R. at 702.) According to Dr. Kaczmar, one then weighs the amount of material that passes through each of the sieves to determine the size of the particles in any given sample. (*Id.*) He also testified that grain size analysis is a "visual" analysis: "You collect a sample and its got some big pieces, small pieces, and some really tiny pieces in it, you can differentiate one from the other." (R. at 703-04.) Based upon GEO Engineering's testing, Dr. Kaczmar concluded that the grain size of the soil samples for quadrants II and III did not match the grain size of the samples from the foundry's lot. (R. at 705.)

Despite presentation of evidence indicating several sources of contamination and that the sand remained in certain portions of the Site, Remaining Defendants failed

to provide the Court with a way to separate the harms or the costs of cleanup. *Cf. Northwestern Mutual Life Ins. Co. v. Atlantic Research Corp.*, 847 F. Supp. 389, 401 (E.D. Va. 1994) ("Although it is reasonably clear that several sources, including the lime pit and the Hot Lab, contributed to the release of hazardous materials at the facility, there is no way to separate out these harms."). The EPA found that the contamination at the Site is foundry-related. While the EPA's determination is not dispositive, the Court finds it more persuasive than Remaining Defendants' proof which fails to provide the Court with a feasible alternative. Thus, the Court finds that the harm at the Site is indivisible.

B. Apportionment of Liability

Remaining Defendants bear the burden, in the case of indivisible harm, of providing the Court with a rational basis for apportionment of liability. In their post-trial brief, however, Remaining Defendants argue that the burden somehow rests with Plaintiffs: "The spotty data produced by Abex makes extrapolation of generators' shares from the few documents highly speculative. . . . Abex, not the Railroad Defendants should bear the consequences of its unexplained failure to produce complete records of shipments to the Foundry for 46 of the Foundry's 51 years of operation." (Defs.' Br. at 20.) The Court recognizes that the parties produced few records to document the activity at the foundry. The foundry operated from 1927 until 1978; however, the parties produced "relatively complete" records for five non-consecutive years and some additional information for a few Defendants who produced their own records. (R. at 436.) The parties also

had the benefit of information provided by Mr. Elmer Oakes, who was employed at the foundry for approximately twenty-two (22) years. Despite the paucity of documents, in order to avoid joint and several liability, Remaining Defendants had the burden of providing the Court a rationale for apportionment. *Cf. Chesapeake & Potomac Tele. Co. v. Peck Iron & Metal Co.*, 814 F. Supp. 1269, 1279-80 (E.D. Va. 1992) (finding that it could not "reaonably divvy up the environmental harm" for a site with six years of incomplete records for company which operated for fifteen years). As the Court explains below, Remaining Defendants failed to carry this burden; however, the Court has been able to fashion from all the evidence a reasonable basis for apportionment.

In this instance, Remaining Defendants are liable for contamination caused by disposal and/or treatment of worn journal bearings. Remaining Defendants attempted to establish the volume of waste, in the form of worn journal bearings, each party contributed to the Site. They offered the testimony and compilation[5] of data of Matthew Low, an engineer and attorney, whose firm developed a database of shipments of lead bearing materials into the foundry. Mr. Low testified that for the years for which he had data, Defendants I shipped approximately 90% of the non-virgin lead-bearing materials to the Site. (R. at 590.) He also testified that CSX Transportation, Inc. and its related entities, Fruit Growers Express Company,

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[5] Rule 1006 of the Federal Rules of Evidence provides that "[t]he contents of voluminous writings . . . which cannot conveniently be examined in court may be presented in the form of a chart, summary, or calculation." FED. R. EVID. 1006.

Inc., and Norfolk Southern Railway Company and its related entities shipped approximately 66.85% of the lead-bearing material into the Site. (*See* R. at 569, 614-15.) Remaining Defendants presented and the Court admitted most, if not all, of the records used by Mr. Low's firm to create the database. (R. at 624 (admitting Defendants' Exhibits 40-124, 153-55).) However, after cross-examination of Mr. Low, the Court sustained Plaintiffs' objection to the admission of Remaining Defendants' compilation as an exhibit. (R. at 618-20 (Defendants' Exhibit 39 refused).) Cross-examination of Mr. Low indicated numerous inaccuracies and discrepancies between the compilation and the underlying documents. (R. at 575-615.) For example, on cross-examination, Mr. Low admitted that in at least four instances, his firm erred in interpreting the entries in the foundry's records for pounds of worn journal bearings shipped to the foundry. His firm attributed poundage to non-existent entities when the entries were actually for parties to this litigation. Plaintiffs' counsel also pointed out approximately six other discrepancies in Remaining Defendants' compilation. In rejecting the compilation, the Court ruled that although it could accept a summary chart pursuant to Rule 1006 of the Federal Rules of Evidence, Remaining Defendants' compilation did not fairly represent the evidence before the Court: the underlying records. *United States v. Bakker*, 925 F.2d 728 (4th Cir. 1991); *United States v. Strissel*, 920 F.2d 1162 (4th Cir. 1990); *United States v. Porter*, 821 F.2d 968 (4th Cir. 1987).

Plaintiffs retained Dr. Kenneth Wise[6] to estimate, *inter alia*, the poundage of worn journal bearings that each Defendant sent to the foundry. Dr. Wise used documents from the foundry that indicated the amount of metal received by the foundry, (Pls.' Exs. 1-27), bills of lading to railroads or from truck drivers, invoices for conversions of worn journal bearings into new journal bearings, and credit letters. (Pls.' Exs. 28-234.) Dr. Wise testified that he had relatively complete information for the years 1961, 1962, 1964, 1967, and 1968. (R. at 436.) Dr. Wise also relied upon the deposition of Elmer Oakes and several other employees of Pneumo Abex, as well as the affidavit of Mr. Oakes. Dr. Wise used Moody's Reports to develop estimates of the amount of material sent by conversion customers. (R. at 430, Pls.' Ex. 244.) Dr. Wise testified that in making his estimate, he considered the possible bias against companies that were not consistent users of the foundry over time. (R. at 437.) From Moody's Reports, he obtained information on the "ton miles[,] or the number of freight miles[,] or [the] number of gondola cars . . . to extrapolate for certain companies into years where Elmer Oakes suggested they would have been customers of the foundry but which were not covered by the documents." (R. at 437.) Dr. Wise testified that according to his calculations, which exclude the contributions of

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[6] Dr. Wise holds a bachelor's degree in physics from Harvey White College and a doctorate in economics from Massachusetts Institute of Technology. (R. at 420.) He has experience in the lead industry and other metals markets. (R. at 420-22.)

Pittsburgh and Lake Erie Railroad Company,[7] Remaining Defendants "Fruit Growers Express along with CSX and Norfolk Southern" delivered 80.1% of the worn journal bearings to the foundry. (R. at 477.) Plaintiffs did not offer as an exhibit a summary of Dr. Wise's projections.

Remaining Defendants objected to Dr. Wise's projections because he relied upon records from only a few of the years at issue. Dr. Wise also testified that he did not include Third-Party Defendant, Illinois Central Railroad Company in the calculations. (R. at 472.) Furthermore, Remaining Defendants questioned many of the assumptions upon which Dr. Wise based his conclusions, such as suggesting that the estimates assumed consistent usage of the foundry by Defendants as opposed to use of competing operations, (R. at 469), or use of one of Pneumo Abex's foundries in other parts of the country. (R. at 470.) However, Dr. Wise testified that when he made the estimate, he took into account indications that a railroad was not using the foundry in Portsmouth at a particular time. (R. at 470.) He also testified that he made adjustments according to Mr. Oakes's testimony about how long a railroad was a customer of the foundry. (R. at 474.)

The Court finds Dr. Wise's methodology to be a reasonable approach for estimating the contributions of

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[7] Counsel for Defendant Pittsburgh and Lake Erie Railroad Company indicated that his client had filed for relief under Chapter 11 of the Bankruptcy Code. The Court released counsel from the trial pursuant to the automatic stay of Chapter 11. 11 U.S.C. § 362 (1994).

Defendants and that it reflects more accurately the available records than does Remaining Defendants' compilation as presented by Mr. Low. Furthermore, having rejected Remaining Defendants' compilation as unrepresentative of the underlying records, use of Dr. Wise's calculations is the only way for the Court to avoid assigning Remaining Defendants with 100% of Defendants' Share of the liability (minus the amounts of settlements). Accordingly, the Court assigns Remaining Defendants 80.1% of Defendants' Share as discussed below in section III.D.

C. Recoverable Costs / Costs Consistent with the NCP

Section 107(a)(3)(B) provides that Remaining Defendants are liable for "any other necessary costs of response incurred by any other person consistent with the national contingency plan." Plaintiffs, however, bear the burden of proving that their response costs are consistent with the national contingency plan (the "NCP"). *United States v. Northeastern Pharmaceutical & Chem. Co., Inc.*, 810 F.2d 726, 747 (8th Cir. 1986); *United States v. J.M. Taylor*, 909 F. Supp. 355, 362 n.8 (M.D.N.C. 1995). Remaining Defendants contend that Plaintiffs have not established that many of their costs are either necessary or consistent with the NCP. Remaining Defendants also argue that the applicable statute of limitations bars some of Plaintiffs' claims. More specifically, Remaining Defendants challenge Plaintiffs' claims for the cost of oversight by the EPA and the VDWM, attorneys' fees, the lost time of the employees of

the City and the PRHA, and medical monitoring. Remaining Defendants also charge that Plaintiffs are attempting to win "multiple recovery" by presenting more than one bill for a single expense.

The Court begins its analysis with the recognition that CERCLA does not define the phrase "costs of response." CERCLA does, however, define "response." The statute defines "response" as "remove, removal, remedy, and remedial action; . . . all such terms . . . include enforcement activities related thereto." CERCLA § 101(25). CERCLA further defines remove and removal in § 101(23) and remedy and remedial action in § 101(24). Thus, it appears that the costs of removal and remedial actions are costs of response. *Ascon Properties, Inc. v. Mobil Oil Co.*, 866 F.2d 1149, 1154 (9th Cir. 1989).

The Court now turns to the requirement that the costs of response be consistent with the NCP. The purpose of the NCP "is to provide the organizational structure and procedures for preparing for and responding to . . . releases of hazardous substances. . . . " 40 C.F.R. § 300.2 (1995). "The NCP provides . . . for [p]rocedures for undertaking response actions pursuant to CERCLA. . . . " 40 C.F.R. § 300.3(b) (1995). The regulations further provide as follows:

For the purpose of cost recovery under section 107(a)(4)(B) of CERCLA:

> (i) A private party response action will be considered "consistent with the NCP" if the action, when evaluated as a whole, is in *substantial compliance* with the applicable requirements in paragraphs (5) and (6) of this section, and results in a CERCLA-quality cleanup; and

> (ii) Any response action carried out in compliance with the terms of . . . a consent decree entered into pursuant to section 122 of CERCLA will be considered "consistent with the NCP."

40 C.F.R. § 300.700(c)(3) (1995) (emphasis added). Most of Plaintiffs' claimed costs are for the services rendered by the vendors, contractors, and subcontractors who conducted the actual work at the Site; "the main thrust of the remedy is to excavate soil containing lead." (R. at 49.) Plaintiffs have conducted this work under the direction of the EPA and the VDWM, consistent with various administrative orders and consent decrees. (*E.g.*, R. at 48-52; 250-55.) The Court thus finds that the majority of the claimed costs are recoverable.

1. Statutes of Limitations

Section 113(g)(2)(A) of CERCLA provides in relevant part that actions for the recovery of costs referred to in § 107 for a removal action "must be commenced- . . . within 3 years after the completion of the removal action." Remaining Defendants argue that the action for recovery of the costs associated with the Consent Order of 1986 is time-barred. Remaining Defendants rely upon the EPA's statement in the administrative order of March, 1992, issued pursuant to § 106(a) of CERCLA, that the removal action under the 1986 Consent Order was completed "on or about February of 1988." (Pls.' Ex. 314, at 3.) Plaintiffs filed their complaint in July of 1994. Remaining Defendants do not cite any cases for the proposition that a statement from the EPA in a unilateral administrative order is dispositive of the issue of when the statute of

limitations tolls.[8] Plaintiffs counter that for purposes of the statutes of limitations, all activity up to and including issuance of a record of decision constitutes the removal action.

In *Kelley v. E.I. Dupont De Nemours & Co.*, 17 F.3d 836, 840 (6th Cir. 1994), the United States Court of Appeals for the Sixth Circuit affirmed the district court's ruling that "surface removal activity and the RI/FS comprise a single removal action for statute of limitations purposes." In that case, the defendants argued that the surface removal activity was an emergency physical removal under § 104(a) of CERCLA and the RI/FS was conducted pursuant to § 104(b). Thus, they argued that because different subsections of the Act governed the activities, the activities were distinct, with two different dates of completions. In finding that both activities comprised one removal action, the Sixth Circuit found that the two subsections were interrelated and implied Congress's expectation that both types of activities would be taken in tandem. *Id.* at 840-41.

Several district courts have held that the statute of limitations does not begin to run until the EPA issues the record of decision. *E.g., United States v. Davis*, 882 F. Supp. 1217, 1225-27 (D.R.I. 1995) (citing cases); *California v. Celtor Chem. Corp.*, 901 F. Supp. 1481, 1487-89 (N.D. Cal. 1995). Citing *Kelly v. E.I. DuPont De Nemours & Co.*, the

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[8] Defendants do, however cite *Kelly v. E.I. Dupont de Nemours & Co.*, 17 F.3d 836, 840 (6th Cir. 1994) and *One Wheeler Rd. Assocs. v. Foxboro Co.*, 843 F. Supp. 792 (D. Mass. 1994), which held that the removal actions were not complete until the last removal action concluded.

district court in *Celtor Chem. Corp.* found that the first phase of the cleanup was the removal action which ended when the EPA signed the ROD and that "[a]ll of the cleanup activities which took place within this time period, including the Remedial Investigations and Feasibility Studies, constitute a single 'removal action' under CERCLA." 901 F. Supp. at 1488. The Court finds persuasive the reasoning of these cases. Plaintiffs have been engaged in this cleanup for some time; however, their efforts have been continuous and the EPA did not issue the ROD until 1992 and the Amended ROD until 1994. Thus, the Court finds the statute of limitations bars none of Plaintiffs' claims presented to the Court.

2. Costs of Oversight

Plaintiffs petition the Court for recovery of the costs they reimbursed the EPA for oversight of the cleanup activities. Pursuant to the Consent Decree, Plaintiffs have reimbursed the EPA $1,170,131.37, and the Court received testimony that subsequent to the Consent Decree, Plaintiffs have paid the EPA an additional sum of $570,064.34 for a total of $1,740,195.71 (R. at 377-78, pls.' Exs. 259, 363.) Plaintiffs argue that because the Consent Decree required them to reimburse the EPA for its costs of oversight, they should be able to recover Remaining Defendants' proportional share. As for the involvement of the VDWM, Plaintiffs conducted the RI/FS under the supervision of VDWM. Also, the EPA and Commonwealth of Virginia jointly published the 1992 ROD and the Amended ROD. Remaining Defendants argue that only

the EPA's costs associated with the Remedial Investigation/Feasibility Study ("RI/FS") conducted pursuant to the consent order of 1989 are recoverable. They further argue that the RI/FS terminated with the final document in February, 1992. Remaining Defendants make no mention of costs associated with the oversight of VDWM.

The United States Court of Appeals for the Fourth Circuit has not addressed the recovery of costs for agencies; oversight. In support of their position, Remaining Defendants cite *United States v. Rohm & Haas Co.*, 2 F.3d 1265, 1278 (3d Cir. 1993), which drew a distinction between the government's role in performing cleanups and the government's role in supervising cleanups by private parties. *Cf. United States v. Lowe*, 864 F. Supp. 628, 632 (S.D. Tex. 1994) (holding that *Rohm & Haas* leads "to the incongruous result that the EPA could recover the costs of overseeing its own contractors but not the costs of overseeing those hired by the potentially responsible parties"). Discussing § 104(b) of CERCLA, the United States Court of Appeals for the Third Circuit held that an RI/FS is one type of investigation contemplated by § 104(b) and is thus a removal action. *Rohm & Haas*, 2 F.3d at 1277. However, the Third Circuit held that "if what the government is monitoring is not the release or hazard itself, but rather the performance of a private party, the costs involved are non-recoverable oversight costs." *Id.* at 1279. Plaintiffs cite a number of cases which have not similarly restricted recovery of the costs of oversight. *E.g., United States v. R.W. Meyer, Inc.*, 889 F.2d 1497 (6th Cir. 1989); *California v. Celtor Chem. Corp.*, 901 F. Supp. 1481 (N.D. Cal. 1995); *United States v. Lowe*, 864 F. Supp. 628 (S.D. Tex. 1994). In *R.W. Meyer, Inc.*, the United States

Court of Appeals for the Sixth Circuit held that § 107(a) authorized the recovery of indirect costs. 889 F.2d at 1504. In rejecting the defendant's arguments, the Sixth Circuit explained as follows:

> [T]o the extent cleanup actions are necessary, we are persuaded that the statute contemplates that those responsible for hazardous waste at each site must bear the full cost of cleanup actions and that those costs necessarily include both direct costs and a proportionate share of indirect costs attributable to each site. In essence then, the allocation of indirect costs to specific cleanup sites effectively renders those costs direct costs attributable to a particular site.

Id. This Court is most persuaded by the reasoning of the Sixth Circuit. In this instance, the cleanup would not occur without the oversight of the EPA and the VDWM. Thus, the Court finds that these costs of oversight by the EPA and the VDWM are necessary costs of response consistent with the NCP. The Court notes that Plaintiffs have not submitted a claim for the costs of oversight by VDWM. The Court accordingly finds that Plaintiffs may recover the costs of oversight by the EPA that they have already incurred, and pursuant to the Declaratory Judgment Act, 28 U.S.C. § 2201(a) (1994), Plaintiffs may recover any future costs of oversight by the EPA and the VDWM that are consistent with the NCP and this memorandum opinion and order.

3. Attorney's Fees

In *Key Tronic Corp. v. United States*, 114 S. Ct. 1960, 1967 (1994), the United States Supreme Court held that

"some lawyers' work that is closely tied to the actual cleanup may constitute a necessary cost of response in and of itself under the terms of § 107(a)(4)(B)" and is thus recoverable. In that instance, the Supreme Court considered whether the plaintiff-petitioner could recover the costs associated with pursuing an action for recovery of costs, the cost of the attorneys' efforts to identify potentially responsible parties ("PRPs"), and the costs of the negotiations between the plaintiff-petitioner and the EPA which culminated in a consent decree. The Supreme Court placed the costs at issue into two broad categories: 1) traditional expenses of litigation and those incurred to protect Key Tronic's interest as a defendant in proceedings that established the extent of its liability and 2) expenses which increase the probability that cleanup will be effective and paid for and that serve a statutory purpose other than the reallocation of costs. *See id.* at 1967-68. The Supreme Court held that the plaintiff-petitioner could recover only the attorneys' costs for identifying PRPs. *Id.* at 1967.

Corporate Counsel for Whitman Corporation testified that one law firm, Winston and Strawn, assisted Pneumo Abex in its dealings with the EPA in a number of ways. (R. at 239.) He further testified that the law firm 1) assisted in the discussions of the appropriate remedy, 2) participated in various activities involving cleanup, and 3) assisted in identifying PRPs. (*Id.*) Although this witness testified that he did not know if the invoices involved negotiating the consent decree in 1986, (R. at 245), the Court's review of the invoices indicate that they cover the period from 1991 to 1994. The witness also testified that the invoices covered a period too early in

time to be associated with the latest consent decree which the Court entered in 1996. (*Id.*)

The Court's review, however, also uncovered some deficiencies in Plaintiffs' proof of its recoverable costs. For example, many of the invoices contain entries for conferences among attorneys within the firm. Although the entries indicate that the conferences were held to discuss the Site, the Court is unable to discern whether the conferences concerned Plaintiffs' liability, consent decrees or administrative orders, or the technicalities of the cleanup. For example, one of the invoices from Winston and Strawn lists one hour of billable time for "Status and strategy conference with J. Homsy." (Pls.' Ex. 258 Moore 1.) This conference could have involved the technicalities of the cleanup, the recovery of costs from other PRPs, or any number of matters for which Plaintiffs may or may not be entitled to recover; Plaintiffs simply did not illuminate the nature of such expenses. Another invoice contains an entry for eleven (11) hours for "Preparation for meeting with U.S. EPA." (Pls.' Ex. 258 Moore 1.) The Court does not know if the meeting involved negotiations for a consent decree for which costs would not be recoverable or if it involved some compliance issue for which costs may be recoverable. The invoices also contain numerous entries for "Photocopy Miscellaneous Environmental Documents." Plaintiffs did not offer testimony of how or if the firm segregated photocopying charges related to the cleanup from those that were not. Similarly, the Court could not discern whether the long distance telephone charges were related to the cleanup. Also, throughout the invoices, portions of the descriptions of the billed for activities have been blacked-out

and the total number of hours associated with the activities have been adjusted, presumably downward, by handwritten notations. Plaintiffs offered no testimony to establish how they or the law firm adjusted the hours. Furthermore, the manner in which the adjustments are indicated in the records suggests to the Court that these adjustments were made long after Plaintiffs incurred the costs, when memories may have been inaccurate or incomplete.

Corporate Counsel for Pneumo Abex[9] testified that another law firm, Bingham, Dana & Gould provided legal assistance through legal research, identifying actions the EPA had taken at other sites contaminated with lead, addressing legal issues in formulating work plans, addressing issues of compliance and issues that arose during the response activities, and assisting with the contracts of vendors and contractors. (R. at 376-77.) These invoices covered the period from 1986 to 1990. This witness further testified that one of the law firm's functions was "to protect the corporate interest." (R. at 388.) When asked on cross-examination in a series of questions whether he could separate the services of the law firm into those that protected the corporate interest generally and those associated with the cleanup, (R. at 388-91), the

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[9] For clarification, the Court understands that the witness was employed by Abex Corporation in 1986 and is currently employed by McAndrews & Forbes, a holding company. Pneumo Abex went through a series of changes in its corporate structure, and McAndrews and Forbes now manages this case for Pneumo Abex. However, the Court is primarily concerned with the witness's involvement as a past and present legal representative for Pneumo Abex. (R. at 365-67.)

witness answered that such a separation was "not a distinction that makes sense" to him. (R. at 391.) One of the invoices from Bingham, Dana & Gould lists "Prep for, attend meeting at Abex re strategy on remedial issues and NPL listing" for $1,182.50. (Pls.' Ex. 258 Kenfield 1.) Another example is "Telephone conference with Rhodes and Lee" for $60.00 (*Id.*) Without further explanation, the Court cannot reasonably conclude that the firm performed this work in connection with the actual cleanup as opposed to protecting Pneumo Abex's interest in its attempt to limit its liability or avoid listing on the NPL.

Although Plaintiffs presented two witnesses to lay a foundation for the admission of the invoices from the two law firms, the Court, through its examination of the exhibits, is unable to discern whether many of the expenses incurred are "closely tied to the actual cleanup."[10] Unlike the plaintiff-petitioner in *Key Tronic*, Plaintiffs did not provide the Court with a categorization of its attorneys' fees. Rather, Plaintiffs provided the Court with two sets of invoices, totalling more than 500 pages, with the only assistance to the Court being the total cost for each law firm. The Court thoroughly reviewed the exhibits and has found that a portion of Pneumo Abex and Whitman Corporation's claimed attorneys' fees are closely tied to the actual cleanup and are recoverable.

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[10] The Court notes that Plaintiffs merely "dumped" voluminous invoices in the record without sufficient explanation of the presumably relevant information within the exhibits. The Court questioned whether this practice could create any difficulties, and Remaining Defendants indicated that they would be challenging specific items. (*E.g.*, R. at 244-46, 403, 407, 424.)

Regarding the City's claim for the services of its outside legal counsel, Hogan and Hartson, L.L.P., the Court examined the invoices and allowed only those portions that the Court could reasonably attribute directly to the cleanup. The Court similarly allows the costs for the services of the PRHA's outside legal counsel, Cooper Spong & Davis. Also, the Court notes that portions of several of the entries for Hogan and Hartson, L.L.P. were redacted, but the corresponding hours for those activities had not been adjusted. (Pls.' Ex. 279.) Furthermore, the City's and the PRHA's proof suffered from many of the same deficiencies that Pneumo Abex's and Whitman Corporation's proof did.

4. The Lost Time of the Employees of the City and the PRHA

Plaintiffs presented evidence of the time spent by employees of the City and the PRHA in dealing with the Site. They calculated the portion of each employee's salary that could be attributed to the time spent on the Site. Remaining Defendants argue that the lost time is a form of economic loss that is not recoverable under CERCLA. Plaintiffs respond that the use of the employees of the City and the PRHA rather than consultants does not render the costs of such work unrecoverable. Plaintiffs cite *T & E Indus., Inc. v. Safety Light Corp.*, 680 F. Supp. 696 (D.N.J. 1984), in support of their position that the time spent by the employees of the City and PRHA are recoverable because the activities performed by these employees were required by the NCP. In *T & E Indus.*, the district court found that the plaintiff could recover for the

time spent by its president if it could adduce sufficient facts to demonstrate that he was personally involved in monitoring, evaluating, and minimizing the contamination. 680 F. Supp. at 707. *Cf. Hatco Corp. v. W.R. Grace & Co.*, 849 F. Supp. 931, 971-72 (D.N.J. 1994) (holding that salaries of management and personnel are recoverable as indirect costs associated with general operation of response action). In so holding, the court rejected the defendants' argument that it should draw a distinction between costs recoverable by the government and those recoverable by private parties. *Id.* at 706. Remaining Defendants cite *Juniper Dev. Group v. Kahn (In re Hemingway Transp., Inc.)*, 126 Bankr. 646, 663 (D. Mass. 1991), *aff'd in part, rev'd in part on other grounds*, 993 F.2d 915 (1st Cir. 1993), in support of their position that the lost time is not recoverable. In finding that the value of the time of the plaintiff's employees was not recoverable, the bankruptcy court explained as follows:

> Nothing in the statutory language of CERCLA indicates that employee time should be considered a cost of response. Rather, employees must be paid whether or not they have to spend their time addressing waste cleanup efforts; these costs are not made necessary by the improper disposal of wastes. To interpret CERCLA to require reimbursement of employee time and effort would, in effect, compensate CERCLA plaintiffs for lost employee productivity. But CERCLA was never intended to provide for the recover of business losses.

Id. The bankruptcy court relied upon *Artesian Water Co. v. Government of New Castle County*, 659 F. Supp. 1269, 1287 (D. Del. 1987), *aff'd*, 851 F.2d 643 (3d Cir. 1988), which

held that losses resulting from idling property and equipment were not recoverable because they were economic losses. The Court finds Remaining Defendants' reliance upon this line of cases unpersuasive, particularly because the losses discussed in *Artesian Water Co.* were those associated with the business previously conducted upon the contaminated site, not with the losses and/or costs associated with the actions taken in response to the contamination.

As a result of responding to the contamination for which Defendants' are partially responsible, the City and the PRHA presumably faced one or more of three scenarios because they did not hire outside consultants to handle the situation: 1) existing personnel diverting their time from other governmental affairs to attend to the Site and other matters remained unaddressed, 2) hiring of new personnel, temporary or permanent, to compensate for the increased work load, or 3) existing personnel working overtime. Regardless of which scenario occurred, the Court finds that CERCLA provides for all liable parties to share in the costs. The Court now turns to Plaintiffs' proof of these indirect costs.

To calculate the costs for the time of the employees of the City and the PRHA, Plaintiffs referred to the calendars of the personnel involved and estimated, based upon entries in the calendars, how many hours the employees spent dealing with the Site. The City presented calendars for several employees. The Court found this documentation to be problematic for several reasons. First, many of the entries in the calendars are illegible because of poor quality photocopies. (*E.g.*, Pls.' Ex. 266.) Second, although the activities described may be directly

related to cleanup and the entries provide the times at which the activities presumably began, the entries do not include when the activities ended. (*E.g.*, Pls.' Ex. 269.) Also, these estimates of time are not contemporaneous with the occurrence of the meeting or activity but have been made after the fact for meetings dating back to as early as 1991. (*See, e.g.*, Pls.' Ex. 269.) For example, the Director of Operations for the PRHA testified as follows about how the PRHA calculated its employees' hours:

> We had my secretary, who also serves as the secretary of the Executive Director and at the time served as secretary to the Director of Housing, she went through and compiled meeting dates from our calendars. She saves our calendars going back a number of years. Whenever we had a meeting scheduled with CSX or Abex, or related to Abex, she would know the meeting related to Abex and what topic. She went back and computed those over the pas[t] three or four years.

(R. at 883.) One example of such a computation is an entry in the PRHA's proof for work from 1992 to 1995 by six (6) employees for sixty-nine (69) hours. The Court is unable to verify such claims. The witness further testified that "[t]he secretary went through the calendar, and where we had a meeting noted – for example, if we had a 1:00 meeting noted for Abex and then we had a 2:00 meeting for something totally unrelated, she would put an hour down and assign it to the Abex category." (R. at 884.) Although a meeting may have appeared on an individual's calendar, the Court cannot be certain that the individual actually attended the meeting nor can the

Court be certain that the individual remained at the meeting until the next appointment on his/her calendar. The witness was asked if he thought the calendared time or uncalendared time would be greater for the employees and he replied:

> Well, certainly my experience has been that we do not keep time the way attorneys do. So if I had a meeting with two other people in the office to discuss something that came through on Abex or something from EPA or whatever, we might discuss it for an hour or two hours, but I don't run in and mark that on my calendar, so I would say that the time that my secretary was able to document for meetings would be the tip of the iceberg in terms of the amount of time that's spent dealing with Abex over the years. . . .

(R. at 886.) Although the City and the PRHA may have spent much more time on the Site than they have claimed, the Court must still question the reliability or accuracy of the claims presented. This uncertainty is largely insurmountable, particularly because Plaintiffs did not present testimony from any of the individuals who actually made the estimate of time.

Furthermore, Plaintiffs made little or no showing that these activities and associated costs were "necessary response costs consistent with the NCP." On several occasions, the Court cautioned Plaintiffs to provide specific testimony about the exhibits, but Plaintiffs continued to cursorily offer voluminous pages into evidence without attempting to clarify many issues on redirect examination. (*E.g.*, R. at 245-46, 407, 424.) Also, many of the witnesses through whom the exhibits were offered were

for the most part custodians of the records and did not have direct knowledge of why the costs were incurred. (*E.g.*, R. at 244, 412.) The lack of "direct knowledge" testimony is particularly problematic when the Court attempts to discern the meaning of entries such as "EPA" for one hour or "Fisher Funeral Home Issues" for four (4) hours. (Pls.' Ex. 265.)

Although the Court finds that as a matter of law indirect costs for the work performed by employees of PRPs may be recoverable, the deficiencies of Plaintiffs' proof in this case prevent recovery for most of their claims for the salaries of the employees of the City and the PRHA.

5. Medical Monitoring/Department of Health's Costs

Remaining Defendants also contend that the City and the PRHA may not recover costs associated with "medical monitoring." They cite *Price v. United States Navy*, 39 F.3d 1011, 1017 (9th Cir. 1994) and *Daigle v. Shell Oil Co.*, 972 F.2d 1527 (10th Cir. 1992) in support of their position. However, Remaining Defendants provide no discussion of the facts or reasoning of these cases or how they apply to the case at hand. Plaintiffs seek recovery of costs for tests for the level of lead in the blood of the residents of the Site, clinic visits, and a survey. (Pls.' Ex. 273; R. at 404.) Having reviewed the cases Remaining Defendants cite, the Court does not find that these costs are of the type considered in those cases.

The United States Court of Appeals for the Ninth Circuit in *Price* followed *Daigle* in holding that an individual homeowner could not recover "the cost of medical monitoring to detect the onset of any latent disease caused by exposure to hazardous waste." 39 F.3d at 1014, 1015-17. In *Daigle*, the United States Court of Appeals for the Tenth Circuit upheld a denial of the plaintiffs' claim for the establishment of a fund to finance long term medical monitoring or surveillance to detect the onset of latent disease. However, the Ninth Circuit has clarified its position in *Price* to explain that it held "that private party medical monitoring activities, *initiated and coordinated independently of ongoing CERCLA cleanup efforts*, were not § 9601 removal or remedial actions. . . . [However,] [t]he reasoning in *Durfey [v. E.I. DuPont De Nemours & Co.*, 59 F.3d 121 (9th Cir. 1995)] and *Price* does not apply to health assessment and surveillance actions engaged in by a governmental agency pursuant to explicit CERCLA provisions. *Hanford Downwinders Coalition, Inc. v. Dowdle*, 71 F.3d 1469 (9th Cir. 1995) (emphasis added). In *Hanford Downwinders Coalition*, the Ninth Circuit considered costs incurred by the Agency for Toxic Substances and Disease Registry ("ATSDR"), established by CERCLA § 104(i) which is not at issue in the instant case. However, in this case, the VDWM, one of the lead agencies at the Site, asked the City's Health Department to conduct the screening to help VDWM determine the necessity of immediate soil removal. (Pls.' Ex. 274.) Each of these cases discusses recovery of costs for *personal* injuries or diseases as being inconsistent with the legislative history and distinguished such costs from the examples of removal actions provided in § 101(23) of CERCLA. This

Court finds that in the instant case "[t]o the extent that plaintiffs seek to recover the cost of medical testing and screening conducted to assess the effect of the release or discharge on public health or to identify potential public health problems presented by the release, however, they present a cognizable claim under section 9607(a)." *Brewer v. Ravan*, 680 F. Supp. 1176, 1179 (M.D. Tenn. 1988). The blood tests in this case do not appear to be the result of the residents' personal concerns but a result of the VDWM's attempt to assess the effects of the release or threatened release upon the residents of the Site and the rapidity with which Plaintiffs needed to respond to the release or threatened release. Accordingly, the Court finds that these medical costs are recoverable.

6. JSG Technical Services

Remaining Defendants also argue that JSG Technical Services ("JSG") did not perform response activities and, thus, Plaintiffs may not recover the cost of JSG's services. JSG became involved with the Site after issuance of the consent decree in 1986. Remaining Defendants focus on some of the descriptions of work in JSG's invoices such as "professional services" "management services," and "environmental management services." (Pls.' Ex. 258 Bassano 10.) Although the Court recognizes that these are rather vague descriptions, Plaintiffs offered testimony to clarify the services provided. The president of JSG testified as follows:

> [JSG] reviewed a work plan that was submitted to the EPA, designed curbing, fencing, capping and storm water runoff that was constructed at

> the site; hired contractors to do the excavation, sampling, construction, and testing required; and I reviewed invoices for those contractors to ensure that the work was done that was invoiced for, and the invoices were accurate, and I approved invoices for that work.

(R. at 338-39.) He also testified that he worked on "treatability studies . . . working toward other means of treating the material rather than disposing of it. . . . " (R. at 339-40.) The Court finds this testimony credible and sufficient evidence to establish that JSGH assisted in the cleanup and removal of hazardous substances and took actions consistent with a permanent remedy. JSG provided services "to prevent, minimize, or mitigate damage to public health or welfare or to the environment . . . [including] security fencing or other measures to limit access," CERCLA § 101(23), and performed or oversaw the performance of such tasks as collection of runoff and excavation. CERCLA § 101(24). Accordingly, the Court find that Plaintiffs may recover the costs of these services as well as those of contractors and vendors listed in Plaintiffs' Exhibit 259.

7. Multiple Recovery

In their post-trial brief Remaining Defendants provide the Court one example of Plaintiffs allegedly seeking to recover twice for one invoice. The Court received testimony that Pneumo Abex sent many of the invoices for work at the Site to its counsel, Winston and Strawn. (R. at 288.) Winston and Strawn then paid the vendors and subcontractors and, according to Remaining Defendants, billed Pneumo Abex for "expert consulting fees."

At trial Plaintiffs submitted the bills from Winston and Strawn as well as invoices from their vendors and subcontractors. Based upon this information and this one example, Defendants argue that "at the least all of Winston's entries labeled 'expert consultation fees' [should] be removed from the total response costs figure." (Defs.' Br. at 28.)

The Court makes several observations in addressing Remaining Defendants' concern. First, Remaining Defendants have provided the Court with one invoice number to be found in Plaintiffs' Exhibit Dunnell 1. More than 500 loose pages comprise Plaintiffs' Exhibit Dunnell 1. Remaining Defendants also direct the Court's attention to Plaintiffs' Exhibit 258 Moore 1, the invoices from the law firm of Winston and Strawn. In reviewing the law firm's invoices, the Court has not included in Plaintiffs' recoverable costs the entries for "expert consultation fees." Furthermore, testimony suggests that these entries were offered as proof that the invoices from vendors, contractors, and subcontractors listed separately in Plaintiffs' Exhibit 259 and provided in Plaintiffs' Exhibits Dunnell 1 and Dunnell 2 were paid on behalf of Pneumo Abex by its counsel. Remaining Defendants have simply failed to adduce sufficient proof for the Court to find that Plaintiffs are attempting to exact double recovery. Furthermore, the Court's independent review of the documentation does not suggest such difficulties.

8. Total Recoverable Costs

The Court conducted an extensive review of Plaintiffs' documentation of costs. With the exception of the

documentation for technical services by vendors, contractors, and subcontractors, Plaintiffs' proof suffered from a lack of direct testimony by individuals with personal knowledge of how or why Plaintiffs incurred the costs. Plaintiffs also failed to separate from the total cost those costs closely tied to the cleanup. For example, many of the costs were associated with consent decrees, particularly attorneys' fees.

a. The City's Costs

The Court disallows much of the City's claimed costs for the services of SCS Engineers because the invoices are for services rendered in the area known as Southside or Portcentre Commerce Park ("Portcentre"). (Pls.' Ex. 275.) Although Portcentre overlaps the Site to a large degree, Plaintiffs offered the Court no method for delineating which costs were associated within the Site versus those outside of the 700-foot circle. (*See* R. at 415-16, 876-77.) The Court has no rationale for apportioning those costs. Also, the City submitted costs for long distance telephone bills, (Pls.' Ex. 270), and costs to send one of the resident families to a meeting with the EPA in Washington, D.C (Pls.' Ex. 271.) Plaintiffs offered no evidence that these costs were necessary and consistent with the NCP. The Court previously has discussed the unreliability of the records upon which Plaintiffs base their claim for the lost time of employees of the City.

b. The PRHA's Costs

The documentation for PRHA's costs suffers from many deficiencies. For example, one entry for employee time for $43.54 simply indicated "Gordon Wheatley meeting with Mrs. Bailey." (Pls.' Ex. 261.) The Court does not know the nature of the meeting and Plaintiffs offered no testimony to explain the entry in the record. Another example is "Meeting in PA (STH) Abex" for $1,000.00. Nothing in the record suggests to the Court the nature of this meeting, other than the blanket statement that these are "amounts paid by PRHA relating to Abex Superfund Site." (R. at 882.)

As the Court has discussed above, Plaintiffs bore the burden of establishing that the costs were necessary and consistent with the NCP. Having reviewed Plaintiffs' claims, the Court finds that the following amounts were necessary response costs consistent with the NCP:

1)	Oversight by the EPA –	$1,740,195.71
2)	The City's costs –	14,072.67
3)	The PRHA's costs –	15,590.64
4)	Attorneys' Fees – Whitman Corporation and Pneumo Abex	44,818.50
5)	Services related directly to excavation and removal at the Site – Whitman Corporation and Pneumo Abex	5,014,888.74
	TOTAL	$6,829,566.26.

D. Plaintiffs' Share and Defendants' Share

As the Court indicated in its order of March 25, 1996, the Court will determine Plaintiffs' Share and Defendants' Share. CERCLA specifically provides for the Court to use equitable factors in an action for contribution pursuant to § 113(f)(1). Although the instant action is not one for contribution, the Court will use these factors to ensure that the responsible parties bear their fair share of liability. In making this determination, the Court considers several equitable factors. One factor is "the degree of involvement by parties in the generation, transportation, treatment, storage, or disposal of hazardous substances." *United States v. Monsanto Co.*, 858 F.2d 160, 168 n.13 (4th Cir. 1988). The district court in *Weyerhaeuser Co. v. Koppers Co.*, 771 F. Supp. 1420, 1426 (D. Md. 1991), listed the following as factors which courts have considered in allocating response costs:

1) the ability of the parties to distinguish their contribution to the discharge, release, or disposal of hazardous waste;

2) the amount of hazardous waste involved;

3) the degree of toxicity of the hazardous waste involved;

4) the degree of care exercised by the parties with respect to the hazardous waste concerned;

5) the degree of cooperation by the parties with government officials to prevent any harm to the public or the environment;

6) the benefits received by the parties from the contaminating activities; and

7) the knowledge and/or acquiescence of the parties in the contaminating activities.

Id. Other courts have also considered the financial resources of the parties involved. *E.g., Central Maine Power Co. v. F.J. O'Connor Co.*, 838 F. Supp. 641, 645 (D. Me. 1993).

In their post-trial brief, Remaining Defendants argue that as owners and operators of the Site, Plaintiffs should bear most of the costs of cleanup. They argue that the relevant equitable factors are control, culpability, and benefit. (Defs.' Br. at 13-16.) Remaining Defendants also try to rebut the inferences Plaintiffs attempted to raise at trial concerning Remaining Defendants' alleged recalcitrance and ability to pay. (*Id.* at 17-19.) Plaintiffs' post-trial brief similarly focused upon Remaining Defendants' refusal to contribute to the response action, the EPA's issuance of § 106 unilateral administrative orders, and Remaining Defendants' financial resources. (Pls.' Br. at 16-18.) The Court's consideration of many of these factors, as discussed below, suggests that Plaintiffs and Defendants should equally bear the costs of cleanup.

1. Degree of Involvement, Degree of Care, and Knowledge and/or Acquiescence

Pneumo Abex is the most obvious PRP at the Site. It owned and operated the foundry which used worn journal bearings and other materials to cast new journal bearings. As the Court explained in its memorandum opinion and order of March 25, 1996, Pneumo Abex placed the bearings in a furnace to melt them down for

re-casting. Pneumo Abex added other metals to the molten scrap to comply with the Association of American Railroads' specifications. The furnaces used were vented to the outside and produced emissions of fine particulate material. Pneumo Abex poured the molten material into sand molds to form the backs of journal bearings. After the backs hardened and Pneumo Abex machined them, Pneumo Abex lined the backs with the scrap lining metal (babitts) that it had separated from the scrap journal bearings initially. Pneumo Abex reused the sand until the sand lost its capacity to form molds. After washing the sand to reclaim bits of brass, Pneumo Abex placed the sand in a nearby creek from approximately 1946 to 1961. After 1961, it placed the sand on the back lot of its property. (R. at 940-41.) However, there is no evidence to suggest that Pneumo Abex knew that it would be subject to liability for its disposal of the sand. (*See* R. at 942.)

Defendants I, however, displayed greater involvement in the treatment and/or disposal of the hazardous substances than many other generators of hazardous substances. For example, Defendants I shipped worn journal bearings to the foundry in their own rail cars. (R. at 939.) They also had company representatives visit the foundry on a regular basis to inspect the new journal bearings and the operation in general. (R. at 937-38.) Mr. Oakes testified that the contracts between the foundry and Defendants I required access to the foundry per the Association of American Railroads' specifications for lined journal bearings as follows:

> The inspector representing the purchaser shall have free entry, at all times, while the work on

> the contract of the purchaser is being performed, to all parts of the manufacturer's works which concern the manufacture of the material ordered. The manufacturer shall afford the inspector, that the material is being furnished in accordance with these specifications. Tests and inspection shall be made at place of manufacture prior to shipment unless otherwise specified.

(Pls.' Ex. 362 at 3, R. at 937.)

Landowner Defendant Holland Investment and Manufacturing, Inc. purchased the foundry in 1984 and conducted vehicle maintenance and repairs on the lot. (Stip. ¶ 16.) Holland Investment and Manufacturing, Inc. moved its operation from the Site in late 1987 or 1988. (R. at 218.) Mr. Rhodes of GEO Engineering testified that as for the contamination of the property owned by Landowner Defendant Runnymede Corporation, "Clearly the very high levels of lead in that area are the result of the foundry operation." (R. at 214.)

The Court's consideration of these factors suggests that Plaintiffs should bear more of the costs of response than Defendants; however the differences here are only slight. Defendants I were fully involved in the transport of the hazardous substances and were also involved in the treatment and/or disposal of the substances. Plaintiffs were fully involved in the disposal and/or treatment of the hazardous substances. *Cf. Central Maine Power Co.*, 838 F. Supp. at 646 (considering two parties' full involvement in generating and arranging for the disposal of waste and other party's full involvement in treatment and disposal of wastes).

2. The Ability of the Parties to Distinguish Their Contributions

As the discussion above concerning divisibility indicates, the parties are only able to roughly distinguish their contributions to the contamination of the Site. The parties have produced few records of shipment of worn journal bearings which indicate Defendant I's contributions. Pneumo Abex also contributed scrap metal purchased on the scrap metal market, to the Site. (R. at 787-88.) The Court has used some of Plaintiffs' volumetric analysis to determine Plaintiffs' Share and Defendants' Share; however, the testimony of Plaintiffs' expert, Dr. Wise, did not include the contribution of lead-bearing materials by Pneumo Abex or Defendants I, individually. The Court has before it no complete volumetric analysis because it refused admission of Remaining Defendants' compilation and Plaintiffs' did not offer theirs. However, Remaining Defendants' expert, Matthew Low, testified that Pneumo Abex contributed approximately 0.9% of the lead-bearing materials at the Site. (*See* R. at 570-71.)

3. Degree of Cooperation with Government Officials

Response activity at the Site began in 1986. Pneumo Abex has entered into two Consent Decrees, one in 1986 and one in 1996, with the EPA and has been the respondent of one unilateral administrative order issued in 1992 pursuant to § 106(a) of CERCLA. The EPA notified Defendants I on several occasions of their status as PRPs. Finally, on May 6, 1996, approximately two weeks before the trial, the EPA issued to Defendants I a unilateral order

pursuant to § 106(a) of CERCLA. Remaining Defendants offered testimony to rebut Plaintiffs' claim that Remaining Defendants had been recalcitrant. Corporate counsel for Norfolk Southern testified that although the EPA sent at least three notices (R. at 488, 490, 491), and a copy of a model consent decree, he viewed the EPA's notifications as "an indication of the agency's jurisdiction under Section 122(a) of CERCLA by which it was renotifying us of the previous special notice waiving the procedures involved in such notice, but inviting further discussion as to our responsibility as EPA has determined it under CERCLA." (R. at 504.) The Court finds that Defendants I's responses to the EPA demonstrate recalcitrance, particularly when considered within the context of the notifications. After identifying Plaintiffs and Defendants I as PRPs and notifying the parties several times of its position, the EPA wrote the following: "By this letter, EPA notifies you of your potential liability with regard to this matter and encourages you to perform or to fiance voluntarily those response activities that EPA determines to be necessary at the Site." (Pls.' Ex. 360 at 3.) To date, Remaining Defendants have not performed or financed the performance of any response activities. The letter also included the following: "To further encourage settlement, the EPA is enclosing with this letter a site-specific draft of EPA's model consent decree." (Pls.' Ex. 360 at 4; R. at 504.) Referring to the preceding sentence from the EPA's letter, the corporate counsel testified that he viewed it "as an invitation to negotiate with EPA as to whether and to what extent it deemed or it felt my company might be responsible for the site." (R. at 504-05.) The EPA extended this "invitation" in December of 1994. Norfolk Southern

met with the EPA in January of 1995 to discuss the special re-notification. However, the counsel testified that Norfolk Southern did not enter into a consent decree because the "EPA has never otherwise asked us to sign a consent decree." (R. at 507.) The next communication from the EPA to Norfolk Southern was the unilateral administrative order of May 6, 1996. (R. at 508.) Norfolk Southern and CSX Transportation, Inc. met with the EPA on May 17, 1996 to discuss the unilateral administrative order. (R. at 508.) When asked if the parties discussed the consent decree at the meeting of May 17, 1996, the counsel testified as follows: "we focused primarily on the need for additional time to respond to their request. We unequivocally indicated our willingness to comply with the order by Tuesday, May 21, one day after the trial was scheduled to begin, and I believe the subject of a consent decree may have come up, but we asked that those matters be deferred pending completion of the actual trial phase of this case." (R. at 509.) He further testified that he was shocked that the EPA issued the order because he had not heard from the EPA in over a year and he thought that if the EPA were going to issue such an order, it would have provided the parties with an opportunity to discuss their concerns as it had in the past. (R. at 509.) During this time, Remaining Defendants did nothing to try to resolve its difficulties with the EPA. (R. at 538.) The Court finds Remaining Defendants' rationale wanting. Remaining Defendants knew that the EPA considered them PRPs as early as January of 1993, (R. at 488), approximately three and one-half years ago. Plaintiffs served them with the complaint initiating this action in 1994, approximately

two years ago. The Court ruled that Remaining Defendants were liable as generators approximately two months before the trial. Most of the parties found liable in that order have settled with Plaintiffs. Yet, Remaining Defendants persist in their refusal to assist in the cleanup of the Site.

4. Benefits Received From the Contaminating Activities

Dr. Wise, Plaintiffs' expert, testified that the railroads derived substantial economic benefits from their use of the foundry. (R. at 431.) He further testified that "for the few years in which I can make a direct comparison, the railroads derived a greater benefit from the operation of the foundry than did the foundry. . . . [I]t was a factor of almost three of four times the benefit to the foundry." (*Id.*) Dr. Wise testified that the railroads benefited from using the foundry because they received a greater credit from their scrap journal bearings than they could have received as payment if they sold the bearings on the scrap market. (R. at 431-32.) He calculated that for the years 1961, 1962, 1964, and 1967 the benefit for the railroads ranged from two (2) cents a pound of scrap journal bearings to nine (9) cents a pound. (R. at 432.) He also calculated that the profit for the foundry was two (2) cents per pound in 1961 and two and one-quarter (2¼) cents per pound in 1962. (R. at 433.) In order to make these calculations, Dr. Wise, used the credit price the foundry paid its customer per pound of scrap metal, the amount per pound the foundry paid on the scrap metal

market, and information from the American Metal Market to derive a forecasting equation to estimate what the price on the scrap metal market would have been for months for which he did not have data. (R. at 432.) On cross-examination, Dr. Wise admitted that the foundry derived from its system of conversion the benefit of largely avoiding the scrap metal market. (R. at 460.) However, he testified that the benefit "nets out in their ultimate profits. That would be one reason they would be willing to pay more for this scrap than the scrap dealer. . . . " (*Id.*)

Remaining Defendants presented testimony from Lewis Perl, an economic consultant, to rebut Dr. Wise's testimony about the benefits received by the parties. Mr. Perl testified that he did not think that Dr. Wise's approach made "econmomic sense." (R. at 840). In essence, he testified that the profits did not change from year to year because a change in the credit price would always accompany a change in the price of a new journal bearing, with the differnce between the two prices remaining constant. (R. at 841.) However, Mr. Perl did not testify to specific instances in the years for which Dr. Wise had data that the changes in the two prices always moved proportionally. He provided hypothetical examples but did not point out specifics in the record. (*See* R. at 842-46.) He also criticized Dr. Wise for comparing the scrap market metal price to the conversion price because the scrap metal market represents cash payments and the conversion represents a credit that is not realized until the new journal bearings are purchased. (R. at 847-48.) In effect, Mr. Perl argued, the railroads lent the foundry the value of the scrap bearings without receiving interest. He

also testified that Pneumo Abex avoided the volatility of the scrap market which reduced their price of capital, (R. at 848); Dr. Wise similarly testified. (R. at 460.) The Court notes that the railroads would have also enjoyed the benefits of avoiding the volatile scrap market. Mr. Perl also testified that "Dr. Wise makes no allowance for the differential quality of the product, which would all flow to the benefit of Abex and certainly not to the railroads." (R. at 848.) Some of Mr. Perl's testimony supported that of Dr. Wise. For example, Mr. Perl testified that

> The reason the scrap price was as low as it was throughout this period is because Abex chose a high transfer price, which made the scrap market uninteresting. Therefore, the railroads didn't go to the scrap market; they went directly to Abex. Therefore, there was not or at least a lesser demand for the scrap metal. Abex doesn't need to go to them. They can go to the railroads directly.

(R. at 849.) Although the thrust of Mr. Perl's testimony was to give an opinion that the railroads did not receive as great a benefit as Dr. Wise had testified, Mr. Perl himself testified that Pneumo Abex presented the most economically attractive option for the railroads. In response to the Court's questions, Mr. Perl testified that the railroads were "neutral" or indifferent to whether they sold their scrap metal on the market or received a credit from the foundry. (R. at 864.) The Court, however, finds this position incredulous. The railroads maintained this relationship for a significant period of time and the Court finds it unlikely that they were "neutral." Mr. Perl further testified that profits from journal bearings accounted for two and one-half percent of the foundry's

profits and that it accounted for six-tenths of a percent of the railroads' profits. (R. at 851.) He reached the figures for the railroads by computing the proportion of the railroads' assets that were represented by the value of the journal bearings. (*Id.*) He reached the figure for the foundry by dividing the profits of the foundry at Portsmouth, as calculated by Dr. Wise, by the total profits for Pneumo Abex. (*Id.*) Mr. Perl only calculated the profits for "five or six railroads," (*Id.*), and he did not indicate in his testimony which railroads those were. (*See id.*)

Having reviewed the testimony of the parties' experts and the exhibits, the Court concludes that the benefits received do not sharply distinguish the liability of Plaintiffs versus Defendants. The Court's analysis of the information suggests that both parties profited from the arrangement. They both had an alternative – the scrap metal market – but chose to remain in this relationship for many years. Consequently, the Court finds that this equitable factor militates in favor of finding Plaintiffs and Defendants equally liable for the costs of cleanup.

5. Financial Resources of the Parties

Plaintiffs argue that Remaining Defendants are capable of contribution to the cleanup: "CSX and Norfolk Southern are enormous, billion-dollar companies. Indeed, by every financial measure they have far more resources than Whitman Corporation, not to mention the City and PRHA." (Pls.' Br. at 18.) Citing *United States v. Altas Minerals & Chems., Inc.*, 41 Env't Rep. Cas. (BNA) 1417, 1480 (E.D. Pa. 1995), Remaining Defendants argue that the financial resources of the parties are relevant if a PRP

is insolvent or unable to absorb a significant portion of the costs. Remaining Defendants also argue that unless a party introduces evidence from which the Court can assess the parties' financial positions, the Court should allocate the shares without regard for financial considerations.

The Court admitted Form 10-Ks that Whitman Corporation, CSX Transportation, Inc., and Norfolk Southern Railway Company submitted to the Securities and Exchange Commission for the year ending December, 1995. (Pls.' Exs. 246-48.) Whitman Corporation reported assets of $2,363.3 million. (Pls.' Ex. 246.) CSX Transportation reported assets of $10,629 million. (Pls.' Ex. 247.) Norfolk Southern Railway Company reported assets of $10,752.3 million. (Pls.' Ex. 248.) According to the Court's own research, Remaining Defendant Norfolk Southern is a Fortune 500 company and Remaining Defendants CSX Transportation, Inc. and Fruit Growers Express Company, Inc. are subsidiaries or affiliates of CSX Corporation, a Fortune 500 company. Plaintiff Whitman Corporation is also a Fortune 500 company. Plaintiff Pneumo Abex has experienced a number of changes in its corporate structure and affiliations during the last few years. (R. at 365-67.) Thus, the Court is unable to find a measure of its financial health. However, the Court notes that Plaintiffs do not argue that Remaining Defendants' resources are greater than Plaintiff Pneumo Abex's. The Court recognizes that the City and the PRHA have the financial resources characteristic of municipalities; however, Plaintiffs have not suggested that the City or the PRHA is unable to meet its obligations at the Site. Nothing in the record suggests that any of the parties are unable to pay a

share of the costs of cleanup. Thus, this factor also counsels in favor of Plaintiffs and Defendants sharing the liability equally.

Considering these equitable factors, the Court concludes that Plaintiffs' Share of the response costs should be 50% and Defendants' Share should be 50%. As the Court indicated in a separate memorandum opinion and order, the principles of the Uniform Comparative Fault Act govern the effect of settlements and bar of future claims for contribution. Having found that Remaining Defendants are responsible for 80.1% of Defendants' Share, Remaining Defendants are liable for 80.1% of half of the response costs incurred or to be incurred by Plaintiffs for the cleanup of OU1, or approximately 40.1% of the total response costs for OU1.

E. Prejudgment Interest

Plaintiffs also petition the Court for an award of prejudgment interest. Section 107(a) of CERCLA provides for the recovery of interest as follows:

> The amount recoverable in an action under this section shall include interest on the amounts recoverable under subparagraphs (A) through (D). Such interest shall accrue from the later of (i) the date payment of a specified amount is demanded in writing, or (ii) the date of the expenditure concerned. The rate of interest on the outstanding unpaid balance of the amounts recoverable under this section shall be the same rate as is specified for interest on investments of the Hazardous Substance Superfund established under subchapter A of chapter 98 of Title 26. For

> purposes of applying such amendments to interest under this subsection, the term "comparable maturity" shall be determined with reference to the date on which interest accruing under this subsection commences.

CERCLA § 107(a). The Hazardous Substance Superfund ("Superfund") provides that the interest rate for repayment of advances to the Superfund shall be "equal to the current average market yield on outstanding marketable obligations of the United States with remaining periods to maturity comparable to the anticipated period during which the advance will be outstanding and shall be compounded annually." 26 U.S.C § 9507(d)(3)(c) (1994). Furthermore, the Secretary of the Treasury must invest any portion of the Superfund not required to meet existing obligations and "[s]uch investments may be made only in interest-bearing obligations of the United States." 26 U.S.C § 9602(b)(1) (1994). The district court in *American Color & Chem. Corp. v. Tenneco Polymers, Inc.*, 918 F. Supp. 945, 960 (D.S.C. 1995), calculated the interest rate "by averaging the auction average annual rate of six (6) month treasury bills and the average annual rate of composite long term government securities" for the years in question. Apparently using this method, Plaintiffs claim that the interest accrued through July 1, 1996 is in excess of $700,000.00 (Pls.' Br. at 22, n.12.) Plaintiffs, however, do not provide the Court with an affidavit of an accountant or similar expert outlining how they calculated this figure. *Cf. American Color & Chem. Corp.*, 918 F. Supp. at 960.

The Court finds that Plaintiffs are entitled to prejudgment interest and **DIRECTS** Plaintiffs to file the following information with the Court within fifteen (15) days of the date of this memorandum opinion and order:

1) the amount of prejudgment interest claimed based upon the amount of the Court's award in this memorandum opinion and order,

2) the date(s) from which they are calculating the interest,

3) the derivation of the interest rate(s) used, and

4) the per diem rate(s) of interest.

CONCLUSION

For the reasons stated above, the Court finds as follows:

1) the harm at the Site is indivisible,

2) there exists a rational basis for apportionment of the liability, assigning Remaining Defendants 80.1% of Defendants' Share of 50%, or approximately 40.1% of the total response costs, those incurred and to be incurred,

3) recoverable response costs to date equal $6,829,566.24, and

4) Plaintiffs are entitled to recover from Remaining Defendants prejudgment interest, in an amount to be determined, which continues to accrue until payment.

Plaintiffs are **DIRECTED** to file with the Court the requested information concerning prejudgment interest within fifteen (15) days of the date of this memorandum opinion and order.

The Clerk is **DIRECTED** to send a copy of this order to counsel for Plaintiffs and counsel for Defendants.

It is so **ORDERED**.

/s/ Raymond A. Jackson
UNITED STATES DISTRICT JUDGE

Norfolk, Virginia
September 12, 1996

UNITED STATES COURT OF APPEALS

FOR THE FOURTH CIRCUIT

FILED MAY 27, 1998

No. 97-1593
CA-94-716-2

PNEUMO ABEX CORPORATION; WHITMAN CORPORATION; CITY OF PORTSMOUTH, VIRGINIA, a municipal corporation; PORTSMOUTH REDEVELOPMENT AND HOUSING AUTHORITY

Plaintiffs-Appellees

v.

HIGH POINT, THOMASVILLE AND DENTON RAILROAD COMPANY;

Defendant-Appellant

NORFOLK SOUTHERN RAILWAY COMPANY; NORFOLK & WESTERN RAILWAY COMPANY

Defendant & Third Party Plaintiff-Appellants

and

CSX CORPORATION; ERIE LACKAWANNA, INCORPORATED; CONSOLIDATED RAIL CORPORATION; GREENLEASE HOLDING COMPANY; LAKE TERMINAL RAIL COMPANY; NEW YORK, SUSQUEHANNA & WESTERN RAILROAD COMPANY; USX CORPORATION; JOHN C. HOLLAND, JR.; CAMBRIA & INDIANA RAILROAD

COMPANY; FLORIDA EAST COAST RAILWAY COMPANY;

Defendants

CSX TRANSPORTATION, INCORPORATED; FLORIDA EAST COAST INDUSTRIES, INCORPORATED; FRUIT GROWERS EXPRESS COMPANY, INCORPORATED; PITTSBURGH & LAKE ERIE RAILROAD COMPANY, INCORPORATED; RICHMOND, FREDERICKSBURG & POTOMAC RAILROAD COMPANY, INCORPORATED; UNION RAILROAD COMPANY, INCORPORATED; BESSEMER AND LAKE ERIE RAILROAD COMPANY, INCORPORATED;

Defendant & Third Party Plaintiff

KAUFMAN & CANOLES, P.C.

Party in Interest

v.

THE RUNNYMEDE CORPORATION; HOLLAND INVESTMENT AND MANUFACTURING COMPANY, INCORPORATED; AMERICAN PREMIER UNDERWRITERS, INCORPORATED; WIMCO; WIMCO METALS, INCORPORATED; WILMAT HOLDINGS, INCORPORATED; TRIANGLE INDUSTRIES, INCORPORATED; ILLINOIS CENTRAL RAILROAD COMPANY

Third Party Defendants

VIRGINIA MANUFACTURERS ASSOCIATION; AMERICAN AUTOMOBILE MANUFACTURERS ASSOCIATION;

INSTITUTE OF SCRAP RECYCLING INDUSTRIES, INCORPORATED

Amici Curiae

No. 97-1594
CA-94-716-2

PNEUMO ABEX CORPORATION; WHITMAN CORPORATION; CITY OF PORTSMOUTH, VIRGINIA, a municipal corporation; PORTSMOUTH REDEVELOPMENT AND HOUSING AUTHORITY

Plaintiffs-Appellees

v.

CSX TRANSPORTATION, INCORPORATED; FRUIT GROWERS EXPRESS COMPANY, INCORPORATED

Defendant & Third Party Plaintiff-Appellants

and

CSX CORPORATION; ERIE LACKAWANNA, INCORPORATED; CONSOLIDATED RAIL CORPORATION; GREENLEASE HOLDING COMPANY; HIGH POINT, THOMASVILLE AND DENTON RAILROAD COMPANY; LAKE TERMINAL RAIL COMPANY; NEW YORK, SUSQUEHANNA & WESTERN RAILROAD COMPANY; USX CORPORATION; JOHN C. HOLLAND, JR.; CAMBRIA & INDIANA RAILROAD COMPANY; FLORIDA EAST COAST RAILWAY COMPANY;

Defendants

FLORIDA EAST COAST INDUSTRIES, INCORPORATED; NORFOLK SOUTHERN RAILWAY COMPANY; NORFOLK & WESTERN RAILWAY COMPANY; PITTSBURGH & LAKE ERIE RAILROAD COMPANY, INCORPORATED; RICHMOND,

FREDERICKSBURG & POTOMAC RAILROAD COMPANY, INCORPORATED; UNION RAILROAD COMPANY, INCORPORATED; BESSEMER AND LAKE ERIE RAILROAD COMPANY, INCORPORATED;

Defendant & Third Party Plaintiff

KAUFMAN & CANOLES, P.C.

Party in Interest

v.

THE RUNNYMEDE CORPORATION; HOLLAND INVESTMENT AND MANUFACTURING COMPANY, INCORPORATED; AMERICAN PREMIER UNDERWRITERS, INCORPORATED; WIMCO; WIMCO METALS, INCORPORATED; WILMAT HOLDINGS, INCORPORATED; TRIANGLE INDUSTRIES, INCORPORATED; ILLINOIS CENTRAL RAILROAD COMPANY

Third Party Defendants

VIRGINIA MANUFACTURERS ASSOCIATION; AMERICAN AUTOMOBILE MANUFACTURERS ASSOCIATION; INSTITUTE OF SCRAP RECYCLING INDUSTRIES, INCORPORATED

Amici Curiae

No. 97-1599
CA-94-716-2

PNEUMO ABEX CORPORATION; WHITMAN CORPORATION; CITY OF PORTSMOUTH, VIRGINIA, a municipal corporation; PORTSMOUTH REDEVELOPMENT AND HOUSING AUTHORITY

Plaintiffs-Appellants

v.

HIGH POINT, THOMASVILLE AND DENTON RAILROAD COMPANY;

Defendant-Appellee

CSX TRANSPORTATION, INCORPORATED, FRUIT GROWERS EXPRESS COMPANY, INCORPORATED; NORFOLK SOUTHERN RAILWAY COMPANY; NORFOLK & WESTERN RAILWAY COMPANY

Defendant & Third Party Plaintiff-Appellees

and

CSX CORPORATION; ERIE LACKAWANNA, INCORPORATED; CONSOLIDATED RAIL CORPORATION; GREENLEASE HOLDING COMPANY; LAKE TERMINAL RAIL COMPANY; NEW YORK, SUSQUEHANNA & WESTERN RAILROAD COMPANY; USX CORPORATION; JOHN C. HOLLAND, JR.; CAMBRIA & INDIANA RAILROAD COMPANY; FLORIDA EAST COAST RAILWAY COMPANY;

Defendants

FLORIDA EAST COAST INDUSTRIES, INCORPORATED; PITTSBURGH & LAKE ERIE RAILROAD COMPANY, INCORPORATED; RICHMOND, FREDERICKSBURG & POTOMAC RAILROAD COMPANY, INCORPORATED; UNION RAILROAD COMPANY, INCORPORATED; BESSEMER AND LAKE ERIE RAILROAD COMPANY, INCORPORATED;

Defendant & Third Party Plaintiff

KAUFMAN & CANOLES, P.C.

Party in Interest

v.

THE RUNNYMEDE CORPORATION; HOLLAND INVESTMENT AND MANUFACTURING COMPANY, INCORPORATED; AMERICAN PREMIER UNDERWRITERS, INCORPORATED; WIMCO; WIMCO METALS, INCORPORATED; WILMAT HOLDINGS, INCORPORATED; TRIANGLE INDUSTRIES, INCORPORATED; ILLINOIS CENTRAL RAILROAD COMPANY

Third Party Defendants

VIRGINIA MANUFACTURERS ASSOCIATION; AMERICAN AUTOMOBILE MANUFACTURERS ASSOCIATION; INSTITUTE OF SCRAP RECYCLING INDUSTRIES, INCORPORATED

Amici Curiae

On Petition for Rehearing with Suggestion for Rehearing In Banc

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The appellees/cross appellants' petition for rehearing and suggestion for rehearing in banc were submitted to this court. As no member of this Court or the panel requested a poll on the suggestion for rehearing in banc, and

As the panel considered the petition for rehearing and is of the opinion that it should be denied,

IT IS ORDERED that the petition for rehearing and suggestion for rehearing in banc are denied.

For the Court,

/s/ Patricia S. Connor
CLERK

42 U.S.C. § 6903. Definitions

[SWDA § 1004]

(3) The term "disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

* * *

(5) The term "hazardous waste" means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may –

> (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
>
> (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

* * *

(27) The term "solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or

dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 1342 of Title 33, or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923) [42 U.S.C.A. § 2011 et seq.].

* * *

(34) The term "treatment," when used in connection with hazardous waste, means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste nonhazardous, safer for transport, amendable for recovery, amendable for storage, or reduced in volume. Such term includes any activity or processing designed to change the physical form or chemical composition of hazardous waste so as to render it nonhazardous.

* * *

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42 U.S.C. § 9601. Definitions

[CERCLA § 101]

For purpose of this subchapter –

* * *

(14) The term "hazardous substance" means (A) any substance designated pursuant to section 1321(b)(2)(A) of

Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title, (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act [42 U.S.C.A. § 6921] (but not including any waste the regulation of which under the Solid Waste Disposal Act [42 U.S.C.A. § 6901 et seq.] has been suspended by Act of Congress), (D) any toxic pollutant listed under section 1317(a) of Title 33, (E) any hazardous air pollutant listed under section 112 of the Clean Air Act [42 U.S.C.A. § 7412], and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 2606 of Title 15. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

* * *

(29) The terms "disposal", "hazardous waste", and "treatment" shall have the meaning provided in section 1004 of the Solid Waste Disposal Act [42 U.S.C.A. § 6903].

* * *

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42 U.S.C. § 9606. Abatement actions

[CERCLA § 106]

(a) Maintenance, jurisdiction, etc.

In addition to any other action taken by a State or local government, when the President determines that there may be an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from a facility, he may require the Attorney General of the United States to secure such relief as may be necessary to abate such danger or threat, and the district court of the United States in the district in which the threat occurs shall have jurisdiction to grant such relief as the public interest and the equities of the case may require. The President may also, after notice to the affected State, take other action under this section including, but not limited to, issuing such orders as may be necessary to protect public health and welfare and the environment.

* * *

42 U.S.C. § 9607. Liability

[CERCLA § 107]

(a) Covered persons; scope; recoverable costs and damages; interest rate; "comparable maturity" date

Notwithstanding any other provision or rule of law, and subject only to the defenses set forth in subsection (b) of this section –

(1) the owner and operator of a vessel or a facility,

(2) any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of,

(3) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances, and

(4) any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities, incineration vessels or sites selected by such person, from which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance, shall be liable for –

(A) all costs of removal or remedial action incurred by the United States Government or a State or an Indian tribe not

inconsistent with the national contingency plan;

(B) any other necessary costs of response incurred by any other person consistent with the national contingency plan;

(C) damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction, or loss resulting from such a release; and

(D) the costs of any health assessment or health effects study carried out under section 9604(i) of this title.

The amounts recoverable in an action under this section shall include interests on the amounts recoverable under subparagraphs (A) through (D). Such interest shall accrue from the later of (i) the date payment of a specified amount is demanded in writing, or (ii) the date of the expenditure concerned. The rate of interest on the outstanding unpaid balance of the amounts recoverable under this section shall be the same rate as is specified for interest on investments of the Hazardous Substance Superfund established under subchapter A of chapter 98 of Title 26. For purposes of applying such amendments to interest under this subsection, the term "comparable maturity" shall be determined with reference to the date on which interest accruing under this subsection commences.

(b) Defenses

There shall be no liability under subsection (a) of this section for a person otherwise liable who can establish by a preponderance of the evidence that the release or threat

of release of a hazardous substance and the damages resulting therefrom were caused solely by –

(1) an act of God;

(2) an act of war;

(3) an act or omission of a third party other than an employee or agent of the defendant, or than one whose act or omission occurs in connection with a contractual relationship, existing directly or indirectly, with the defendant (except where the sole contractual arrangement arises from a published tariff and acceptance for carriage by a common carrier by rail), if the defendant establishes by a preponderance of the evidence that (a) he exercised due care with respect to the hazardous substance concerned, taking into consideration the characteristics of such hazardous substance, in light of all relevant facts and circumstances, and (b) he took precautions against foreseeable acts or omissions of any such third party and the consequences that could foreseeably result from such acts or omissions; or

(4) any combination of the foregoing paragraphs.

* * *

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REGION III

IN THE MATTER OF	:	
Abex Superfund Site, Portsmouth, Virginia	:	
American Premier Underwriters, Inc.; Bessemer and Lake Erie Railroad Company, Inc.; Cambria & Indiana Railroad Company; Consolidated Rail Corporation; CSX Transportation, Inc.; Florida East Coast Railway Company; Fruit Growers Express Company, Inc.; Greenlease Holding Company, Inc; High Point, Thomasville and Denton Railroad Company; Illinois Central Railroad; Lake Terminal Rail Company; Norfolk Southern Railway Company; Norfolk & Western Railway Company; Pittsburgh and Lake Erie Railroad Company, Inc.; Richmond, Fredricksburg, and Potomac Railroad Company, Inc.; Union Railroad Company, Inc.; USX Corporation;	:	Docket No. III-3-96-70-DC
Respondents.	:	
Proceeding Under Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a)	:	

ADMINISTRATIVE ORDER

FOR REMEDIAL DESIGN AND REMEDIAL ACTION

TABLE OF CONTENTS

I.	JURISDICTION	3
II.	PARTIES BOUND	3
III.	FINDINGS OF FACT	5
IV.	CONCLUSIONS OF LAW AND DETERMINATIONS	21
V.	SCOPE OF THE RESPONSE ORDERED	28
VI.	DEFINITIONS	29
VII.	PERFORMANCE OF THE WORK BY RESPONDENTS	33
VIII.	WORK TO BE PERFORMED	35
IX.	ADDITIONAL RESPONSE ACTIONS	45
X.	U. S. EPA PERIODIC REVIEW	46
XI.	QUALITY ASSURANCE	48
XII.	ACCESS	52
XIII.	REPORTING REQUIREMENTS	54
XIV.	SUBMISSIONS REQUIRING AGENCY APPROVAL; COMMONWEALTH REVIEW AND COMMENT	57
XV.	ASSURANCE OF ABILITY TO COMPLETE WORK	59
XV.	FINAL INSPECTION	60

XVII.	EMERGENCY RESPONSE	64
XVIII.	INSURANCE	65
XIX.	ACCESS TO INFORMATION	66
XX.	RETENTION OF RECORDS	68
XXI.	DESIGNATED PROJECT COORDINATOR	69
XXII.	DELAY IN PERFORMANCE	71
XXIII.	ENFORCEMENT AND RESERVATIONS OF RIGHTS	72
XXIV.	COMMUNITY RELATIONS	74
XXV.	GENERAL PROVISIONS	74
XXVI.	EFFECTIVE DATE AND OPPORTUNITY TO CONFER	75
XXVII.	NOTICE OF INTENT TO COMPLY	76
XXVIII.	ADMINISTRATIVE RECORD	76
XXIX.	APPENDICES	76
XXX.	THE UNITED STATES NOT LIABLE	77

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REGION III

IN THE MATTER OF	:	
Abex Superfund Site, Portsmouth, Virginia	:	
American Premier Underwriters, Inc.; Bessemer and Lake Erie Railroad Company, Inc.; Cambria & Indiana Railroad Company; Consolidated Rail Corporation; CSX Transportation, Inc.; Florida East Coast Railway Company; Fruit Growers Express Company, Inc.; Greenlease Holding Company, Inc; High Point, Thomasville and Denton Railroad Company; Illinois Central Railroad; Lake Terminal Rail Company; Norfolk Southern Railway Company; Norfolk & Western Railway Company; Pittsburgh and Lake Erie Railroad Company, Inc.; Richmond, Fredricksburg, and Potomac Railroad Company, Inc.; Union Railroad Company, Inc.; USX Corporation;	:	Docket No. III-3-96-70-DC
Respondents.	:	
Proceeding Under Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a)	:	

ADMINISTRATIVE ORDER
FOR REMEDIAL DESIGN AND REMEDIAL ACTION

Whereas, the United States and the Environmental Protection Agency ("EPA") lodged an Order on Consent for Remedial Design and Remedial Action ["RD/RA"], Civil Action No. 2:96-CV-27, for the Abex Superfund Site entered into with Pneumo Abex Corporation, the City of Portsmouth, and the Portsmouth Redevelopment and Housing Authority ("PRHA") on January 4, 1996, this Consent Decree was entered by Judge Jackson in the Eastern District of Virginia on April 25, 1996;

Whereas, this Unilateral Administrative Order for RD/RA, Docket No. III-3-96-70-DC, for the Abex Superfund Site issued to American Premier Underwriters, Inc.; Bessemer and Lake Erie Railroad Company, Inc.; Cambria & Indiana Railroad Company; Consolidated Rail Corporation; CSX Transportation, Inc.; Florida East Coast Railway Company; Fruit Growers Express Company, Inc.; Greenlease Holding Company, Inc; High Point, Thomasville and Denton Railroad Company; Illinois Central Railroad; Lake Terminal Rail Company; Norfolk Southern Railway Company; Norfolk & Western Railway Company; Pittsburgh and Lake Erie Railroad Company, Inc.; Richmond, Fredricksburg, and Potomac Railroad Company, Inc.; Union Railroad Company, Inc., and USX Corporation ("Respondents") subjects each Respondent to the same terms and conditions set forth in Civil Action No. 2:96-CV-27 for financing and implementing the response actions at the Abex Superfund Site.

Whereas, EPA has determined that the Respondents are jointly and severally liable under Section 107(a) (3) of

the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9607(a) (3), as amended ["CERCLA"] with those parties subject to Civil Action No. 2:96-CV-27.

EPA hereby Orders as follows:

I. JURISDICTION

A. This Unilateral Administrative Order ("the Order"), concerning the Abex Superfund Site (hereinafter "Site" or "Abex Site") in Portsmouth, Virginia, is issued to Respondents by the EPA under the authority vested in the President of the United States by Section 106(a) of CERCLA, 42 U.S.C. § 9606(a). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580 (52 Fed. Reg. 2923, January 29, 1987), and was further delegated to EPA Regional Administrators on September 13, 1987, by EPA Delegation No. 14-4-B.

B. Prior notice of issuance of this Order has been given to the Commonwealth of Virginia pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

C. The Respondents shall undertake all actions required by, and comply with all requirements of this Order, including any modifications hereto [the "Work"].

D. The Work shall be consistent with the National Oil and Hazardous Substances Pollution Contingency Plan, as amended ("NCP"), 40 C.F.R. Part 300, CERCLA, and the Consent Decree in Civil Action No. 2:96-CV-27, lodged on January 4, 1996.

II. PARTIES BOUND

A. This Order shall apply to and be binding upon the Respondents and their agents, successors and assigns.

B. Respondents are jointly and severally responsible for implementing all of the requirements of this Order. The failure by one or more of the Respondents to comply with all or any part of this Order shall not in any way excuse or justify noncompliance by any other Respondent.

C. Neither a change in ownership of any property covered by this Order, nor a change in the ownership or corporate or partnership status of any Respondent, shall in any way alter, diminish, or otherwise affect Respondents' obligations and responsibilities under this Order.

D. In the event of any change in majority ownership or control of any Respondent, that Respondent shall notify EPA, in writing, no later than thirty (30) days after such change, of the nature and effective date of such change. Such Respondent shall provide a copy of this Order to the prospective owner(s) or successor(s) of the Respondent before any change of ownership or control becomes irrevocable.

E. Respondents shall provide a copy of this Order to all contractors, subcontractors, laboratories, consultants, and other persons retained to conduct or monitor any portion of the Work performed pursuant to this Order prior to execution of any agreements or contracts with such persons. Respondents shall condition all contracts and agreements with such persons on compliance with the terms of this Order. Notwithstanding the terms

of such contracts or agreements, Respondents remain responsible for complying with the terms of this Order and for ensuring that their contractors, subcontractors, laboratories, consultants, and other persons retained to conduct or monitor any portion of the Work required by this Order comply with the terms of this Order.

F. Respondents shall provide a copy of this Order to each contractor hired to perform the Work (as defined below) required by this Order and to each person representing Respondent with respect to this Site or the Work, and shall condition all contracts regarding Work under this Order upon performance of the Work in conformity with the terms of this Order. Respondents or their contractors shall provide written notice of this Order to all subcontractors hired to perform any portion of the Work required by this Order. Respondents shall remain responsible for ensuring that their contractors and subcontractors perform the Work contemplated by this Order. Lack of performance by Respondents' contractors or subcontractors shall not excuse Respondents from any obligations of this Order. With regard to the activities undertaken pursuant to this Order, each contractor and subcontractor shall be deemed to be in a contractual relationship with the Respondents within the meaning of Sections 101(35) and 107(b0(30 of CERCLA, 42 U.S.C. §§ 9601(35) and 9607(b) (3).

III. FINDINGS OF FACT

The following facts are contained in the Administrative Record supporting issuance of this Order. That

Administrative Record is incorporated by reference as if fully set forth herein:

A. Abex Superfund Site Location, History, and Uses

1. The Site is a several block area located in a mainly residential area of Portsmouth, Virginia. The Site includes the former Abex foundry and waste sand disposal area, described below.

2. From 1927 to 1978 the corporate predecessors of Pneumo Abex Corporation ("Abex") operated a railroad parts foundry on property located within the Site. The customers of the foundry included the Respondents, who sent used journal bearings to the foundry. The Abex foundry would process the Respondents' used journal bearings and produce new journal bearings for the Respondents.

3. Journal bearings are metal parts designed to hold oil against railroad car axels for lubrication. They consist of two parts, a back and a babbit. The back contains tin, lead, zinc, copper, nickel and antimony. The babbit is the soft metal lining, composed of mostly lead.

4. Abex processed the Respondents' used journal bearings by first placing them in a furnace and heating them. This furnace melted the lead backs off of the journal bearings and simultaneously removed the dirt and grease from the journal bearings. The furnace was vented to the outside. The babbit material separated from the back was shipped to the babbit lining department where it was reused to pour new babbits.

5. The brass backs of the journal bearings were melted down in a second furnace also vented to the outside. The foundry would then add lead, tin, zinc and copper to the molten mixture. This molten metal mixture was poured into sand molds to form the backs of the new journal bearings.

6. After the molded backs had hardened and been machined they would be lined using the babbit lining metal that had been recovered from the journal bearings.

7. The molding sand would be reused several times. Eventually it would become too dry and would lose its capacity to form a mold. At that point, the sand would be washed to reclaim bits of brass which had escaped during the molding process. The sand would then be placed on the back lot of the foundry property.

B. Respondents, Responsibility for Conditions at the Site

1. American Premier Underwriters (successor to Penn Central and New York Central Railroads) – American Premier Underwriters, Inc., located in Cincinnati, Ohio, through its corporate predecessors, the Penn Central and New York Railroads, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

2. Bessemer and Lake Erie Railroad Company, Inc. – The Bessemer and Lake Erie Railroad Company, Inc., located in Monroeville, Pennsylvania, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

3. Cambria & Indiana Railroad Company – The Cambria & Indiana Railroad Company, located in Bethlehem, Pennsylvania, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

4. Consolidated Rail Corporation – The Consolidated Rail Corporation, located in Philadelphia, Pennsylvania, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

5. CSX Transportation, Inc. – CSX Transportation, Inc. located in Jacksonville, Florida, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

6. Florida East Coast Railway Company – The Florida East Railway Company, located in St. Augustine, Florida, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

7. Fruit Growers Express Company, Inc. – The Fruit Growers Express Company, Inc., located in Alexandria, Virginia, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

8. Greenlease Holding Company (formerly Greenville Steel Car Company) – The Greenlease Holding Company, located in Pittsburgh, Pennsylvania, through its corporate predecessor Greenville Steel Car Company, arranged for the disposal or treatment of its used journal

bearings, which journal bearings contained lead, at the Abex facility.

9. **High Point, Thomasville and Denton Railroad Company** – The High Point, Thomasville and Denton Railroad Company, located in Jacksonville, Florida, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

10. **Illinois Central Railroad** – The Illinois Central Railroad, located in Chicago, Illinois, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

11. **Lake Terminal Rail Company** – The Lake Terminal Rail Company, located in Monroeville, Pennsylvania, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

12. **Norfolk Southern Railway Company** – The Norfolk Southern Railway Company, located in Norfolk, Virginia, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

13. **Norfolk & Western Railway Company** – The Norfolk & Western Railway Company, located in Norfolk, Virginia, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

14. **Pittsburgh and Lake Erie Railroad Company, Inc.** – The Pittsburgh and Lake Erie Railway Company, Inc., located in Pittsburgh, Pennsylvania, arranged for the

disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

15. Richmond, Fredricksburg, and Potomac Railroad Company, Inc. – The Richmond, Fredricksburg, and Potomoc Railroad Company, Inc., located in Richmond, Virginia, (the assets of which are held by Systems Holdings Inc., a real estate company) arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

16. Union Railroad Company, Inc. – The Union Railroad Company, Inc., located in Monroeville, Pennsylvania, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

17. USX Corporation – The USX Corporation, located in Pittsburgh, Pennsylvania, through its corporate predecessors, Newberg & South Shore Railroad and Youngstown & Northern Railroad, arranged for the disposal or treatment of its used journal bearings, which journal bearings contained lead, at the Abex facility.

C. Response Actions and Investigations Performed at the Site

1. In June of 1984, EPA contractors performed a site inspection and collected several samples from that portion of the Site owned by Abex. Sample results indicated elevated levels of a mixture of hazardous substances including lead (up to 10,400 mg/kg), zinc, copper, tin and antimony.

2. In April of 1986, EPA collected additional soil samples from certain other areas within and adjoining the 700 foot Site area. The results again indicated elevated lead levels. Pursuant to the authority granted by Section 106 of CERCLA, 42 U.S.C. § 9606, in August of 1986, EPA entered into a Consent Order with Abex (Abex became Pneumo Abex Corporation in 1988). Under the 1986 Consent Order, Abex was required to excavate and remove contaminated soil at varying depths from certain residential areas around the Site. Two lots were also paved over;

3. Pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, EPA placed the Site on the CERCLA National Priorities List (NPL), set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on August 28, 1990 (55 Fed. Reg. 35502).

4. In response to a release or a substantial threat of a release of a hazardous substance(s) at or from the Site, Abex performed a Remedial Investigation and Feasibility Study ("RI/FS") for the Site pursuant to the NCP;

5. Abex completed a final Remedial Investigation ("RI") Report and a final Feasibility Study ("FS") Report in February of 1992;

D. The Release of Hazardous Substances at the Site and the Resultant Endangerment

1. The below listed substances, reported in the RI/FS Report, were found on and in the vicinity of the Site and are "hazardous substances" within the meaning of Section 101(14) of CERCLA, 42 U.S.C. 9601(14), because

they are listed at 40 C.F.R 302.4. Carcinogens are classified by the EPA according to the following weight-of-evidence categories: a Class A Human Carcinogen means there is sufficient evidence from epidemiological studies to support a causal association between exposure and cancer; a Class Bl Probable Human Carcinogen means there is limited evidence of carcinogenicity of humans from epidemiological studies; and a Class B2 Possible Human Carcinogen means there is limited evidence of carcinogenicity in animals.

a. **Lead** is a heavy metal that exists in one of three oxidation states, 0, +2, and +4. Primarily, lead is used in equipment where pliability and corrosion resistance are required, in solder, in paints and varnishes, in storage batteries, and in alloys. Occupational exposure to lead dust and fumes can occur during mining, refining, smelting, and welding. Children with pica (placing non-food items in the mouth), as well as children exhibiting normal hand-to-mouth activities, who are exposed to lead-contaminated paint chips, dust, or soil can experience elevated blood lead levels, sometimes at elevations significant enough to cause illness. Some of the effects of elevated blood levels, particularly changes in the levels of certain blood enzymes and in aspects of childrens' neurobehavioral development, may occur at low blood lead levels. The fetus may also be impacted by blood lead levels below 10 micrograms per deciliter (ug/dl). Lead has been classified as a Group B2 probable human carcinogen. Oral exposure to lead salts, primarily phosphates and acetates, has caused kidney tumors in laboratory animals.

b. **Antimony** is a soft metal insoluble in water and organic solvents. It is widely used in the production of alloys. Oral exposure to antimony has been shown to cause burning stomach pains, cholic, nausea and vomiting in human. Long-term occupational inhalation exposure is associated with heart disease in both human and laboratory animals. Decreased longevity and altered cholesterol levels have been observed in rats. Antimony has not been tested for carcinogenicity.

c. **Cadmium** is a bluish-white metal. Small amounts of cadmium are found in zinc, copper, and lead ores. Cadmium is insoluble in water but is soluble in acids. Cadmium dust includes dust of various cadmium compounds. Cadmium is used as a protective coating for iron, steel, and copper because it is resistant to corrosion. Cadmium alloys (copper, nickel) may be used as coatings for other materials, welding electrodes, solders, and in pigments and paints. Various cadmium compounds are used as fungicides and insecticides. Exposure to cadmium can occur through inhalation and ingestion. Short and long-term inhalation exposure to cadmium dust or fumes is associated with swelling of the lung tissue, pain in the chest, difficulty in breathing and emphysema. Long-term ingestion of cadmium is associated with changes and damages to the kidneys in laboratory animals. The EPA has classified cadmium as a Group B1 probable human carcinogen. Cadmium may be associated with an increased risk of prostate and lung cancer in humans occupationally exposed to this contaminant.

d. **Copper** is a reddish-brown metal which occurs free or in ores. It is insoluble in water but soluble

in acid. Metallic copper is used as a conductor of electricity and in all gauges of wire for circuitry, coil and high conductivity tubes. Copper is used in many important alloys, such as brass and bronze. Copper is also used in insecticides, fungicides, catalysts, analytical reagents and paints. Acute exposure to copper salts may cause eye and skin irritation. Acute industrial exposure to copper may occur after exposure to fumes generated during welding copper-containing metals. This type of exposure may cause upper respiratory tract and stomach irritation. Chronic exposure to copper rarely occurs except in individuals with Wilson's disease. This is a genetic condition where abnormal amounts of copper are absorbed and stored by the body. Chronic exposure to copper may result in anemia. Copper is not classifiable as to human carcinogenicity.

e. **Chromium** is a heavy metal that exists in either a trivalent or hexavalent oxidation state. Hexavalent chromium is soluble and mobile in ground water and surface water. Trivalent chromium is in the reduced form and is generally found absorbed to soil and, therefore, it is less mobile. Hexavalent chromium is used in chrome plating, copper photography, copper stripping, aluminum anodizing, as a catalyst, in organic synthesis and photography. Exposure to chromium compounds can occur through ingestion, inhalation and skin contact. Hexavalent chromium may have a direct corrosive effect on the skin and may cause upper respiratory distress, headache, fever, and loss of weight. Long-term occupational inhalation exposure to dust and fumes of hexavalent chromium has been shown to cause lung cancer in humans, especially those in the chromate-producing industry. In addition, a

number of salts of hexavalent chromium are carcinogenic in rats. The EPA has classified hexavalent chromium as a Group A human carcinogen.

f. **Nickel** is a white hard, ferromagnetic metal that is a naturally-occurring element in the earth's crust and is stable in the atmosphere at ambient temperatures. Nickel forms alloys with a variety of metals, including copper, manganese, zinc, chromium and iron. Elemental nickel is used in electroplating and casting operations, magnetic tapes, surgical and dental instruments, nickel-cadmium batteries, and colored ceramics. Occupational exposure to nickel compounds has been associated with an increased incidence of nasal cavity and lung cancers. For this reason, nickel refinery dust has been classified by the EPA as a Group A – Human Carcinogen via the inhalation route of exposure. The most common reaction to nickel exposure is skin sensitization. Nickel and its compounds also irritate the conjunctiva of the eye and the mucous membranes of the upper respiratory tract.

g. **Polychlorinated biphenyls (PCBs)** are complex mixtures of the products of the chlorination of biphenyl. The mixtures contain isomers of chlorobiphenyls with different chlorine content. PCBs may contain other chlorinated mixtures (e.g., chlorinated naphthalenes and chlorinated dibenzofurans). PCBs are stable and nonflammable. They are used chiefly in insulation for electric cables and wires. PCBs are persistent in the environment and bioaccumulate in food chains, with possible adverse effects on animals and man. Prolonged skin contact may cause the formation of chloracne which is characterized by blackheads, fat containing cyst and pustules. Irritation of eyes, nose and throat may also

occur. Systemic toxic effects are dependent upon the degree of chlorination of the biphenyls. Short and long-term exposure may cause liver damage. PCBs may cause embryo toxicity leading to stillbirth. Some PCBs are carcinogenic in animals. The EPA has classified PCBs as Group B2 probable human carcinogens. Oral exposure to PCBs has been shown to cause liver tumors in laboratory animals.

h. **Polycyclic aromatic hydrocarbons (PAHs)** constitute a class of contaminants consisting of substituted and unsubstituted polycyclic aromatic rings formed by the incomplete combustion of organic materials. Their physical, chemical, and biological properties vary with their size and shape. PAHs are persistent in the environment. Benzo (a) pyrene is one of the most common and most hazardous PAHs. Some PAHs are classified by the EPA as a Group B2 probable human carcinogens. Benzo (a) pyrene is the most potent of the carcinogenic PAHs. Oral exposure to benzo (a) pyrene has been shown to produce stomach tumors in mice and rats and mammary tumors in rats. Dermal exposure to benzo (a) pyrene has been shown to produce skin cancer in mice, rats and rabbits. Oral and inhalation exposure to benzo (a) pyrene has been shown to cause lung tumors in mice and rats. Long-term exposure to PAHs may cause birth defects.

i. **Silver** is a white metal insoluble in water and soluble in sulfuric and nitric acids. Alloys or silver (e.g., copper, aluminum, cadmium, lead or antimony) are used in the manufacture of silverware, jewelry, coins, films, mirrors and as a bactericide for sterilizing water, fruit juices, etc. Some silver compounds are also of medical

importance as antiseptics or astringents. Exposure to silver can occur through inhalation of fumes or dust, ingestion of solutions or dust, or through eye and skin contact. Eye and skin contact with metallic silver may produce local permanent discoloration of the skin similar to tattooing. This process is referred to as argyria. Argyria is characterized by a dark, slate-gray color pigmentation of the skin. Generalized argyria can develop through exposure to silver oxides or salts through ingestion and inhalation of dust. Silver is not classifiable as to carcinogenicity.

j. **Zinc** is a bluish-white metal that is stable in dry air, but becomes covered with white coating on exposure to moist air. Zinc is present in abundance in the earth's crust. Zinc chloride is used as a wood preservative, in dry battery cells, in oil refining operations, and in the manufacture of dyes, activated carbon, deodorants and disinfecting solutions. Zinc chromate and zinc oxide are used primarily as pigments. Exposure to zinc compounds can cause skin sensitization, irritation of the nose and throat, fever, and fatigue. Zinc is not classifiable as to human carcinogenicity.

2. This Site is of potential public health concern due to the risk to human health resulting from possible exposure to hazardous substances at concentrations that may result in adverse health effects. Human exposure to contaminants from the Site can result from soil ingestion, food ingestion (eating locally grown food not thoroughly washed to remove contaminated soil), inhalation, direct dermal contact with contaminated soil and dust inhalation from disturbed contaminated soil.

E. The Record of Decision

1. Pursuant to Section 117 of CERCLA, 42 U.S.C. §9617, EPA published notice of the completion of the FS and of the first proposed plan for remedial action in April, 1992 in The Virginia-Pilot/Ledger Star, a major local newspaper of general circulation. EPA provided an opportunity for written and oral comments from the public on the original proposed remedial action. A copy of the transcript of the public meeting is available to the public as part of the administrative record upon which the Regional Administrator based the selection of the response action.

2. A decision by EPA on the remedial action to be implemented at the Site was embodied in a Record of Decision ("ROD") executed in September of 1992. Based upon public comments received on the September, 1992 ROD, and other new information obtained by EPA, a Proposed Plan to Amend the September, 1992 ROD was released to the public on February 14, 1994. Notice of this Proposed Plan was published in The Virginia-Pilot/Ledger-Star on February 17, 1994. The public was invited to participate in public availability sessions and a public meeting during the 30-day public comment period on the Proposed Plan to Amend the ROD.

3. The decision by EPA on the remedial action to be implemented at the Site is embodied in a final Amended Record of Decision ("Amended ROD"), executed in August, 1994, which the Commonwealth of Virginia had a reasonable opportunity to review and comment on and

with which the Commonwealth has given its concurrence. The Amended ROD includes EPA's explanation for any significant differences between the Amended ROD and the original ROD, as well as a summary of responses to the public comments. Notice of the final plan was published in accordance with Section 117(b) of CERCLA, 42 U.S.C. § 9617(b). The Amended ROD addresses Operable Unit 1. Operable Unit 2 will be addressed in a separate ROD.

4. On October 5, 1995 an Explanation of Significant Difference ("ESD") was executed by EPA, Region III, for the Abex Site relating to Operable Unit 1 and the Amended ROD. An ESD sets forth certain changes in the Remedial Action decided upon subsequent to the ROD which do not significantly alter the remedy.

5. The October 5, 1995 ESD sets forth the change in the remedy that allows the City to construct a permanent City facility on the "Effingham two square block" area (bounded on the west by Effingham Street, on the south by Lincoln Street, on the east by Green Street, and to the north by the Washington Park Housing development) within four years and six months of the date of the entry of the Consent Decree. Soil beneath the permanent City facility, if constructed within four years and six months of the date of entry of the Consent Decree, will not be removed.

6. Objectives for the selected remedy at the Site include:

a. In areas of the Site zoned residential, excavation of soils containing greater than 500 mg/kg of lead to the water table;

b. In areas of the Site zoned commercial/industrial of other nonresidential uses, excavation of soil containing greater than 500 mg/kg lead in the first foot, and excavation of soil containing greater than 1,000 mg/kg lead between one foot and two feet. Institutional controls will be implemented to preclude future excavation below two feet and to prevent exposure to contaminated soil.

c. Soil beneath permanent covers (as defined in the Amended ROD), including the permanent City facility (if it is constructed within the specified timeframe), will not be removed.

d. All excavated areas will be backfilled with clean fill.

e. The buildings associated with the former foundry operation, and certain residences, will be demolished prior to the excavation of contaminated soil on these properties.

f. Temporary relocation will be provided to residents while excavation is occurring around residential units. The specific arrangements for temporary relocation will be based on the extent of soil to be removed and the needs of the impacted residents.

7. This Remedial Action will protect human health and the environment by preventing dermal absorption and/or inhalation of lead and/or other hazardous substances by persons who live on or in the vicinity of the Site.

IV. CONCLUSIONS OF LAW AND DETERMINATIONS

A. The Abex Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

B. "Hazardous substances", as that term is defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), have been deposited, stored, placed, or otherwise come to be located on and remain at the Site.

C. The hazardous substances at the Site are being released or threatened to be released as "release" is defined in Section 101(22), 42 U.S.C. § 9601(22), from the Site into the environment, and may present an imminent and substantial endangerment to the public health or welfare or the environment.

D. Each Respondent is a "person" within the meaning of Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

E. American Premier Underwriters, Inc. is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

F. Bessemer and Lake Erie Railroad Company, Inc. is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal

or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

G. Cambria & Indiana Railroad Company is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

H. Consolidated Rail Corporation is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

I. CSX Transportation, Inc. is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment,

of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

J. Florida East Coast Railway Company is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

K. Fruit Growers Express Company, Inc. is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

L. Greenlease Holding Company, Inc. is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity,

at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

M. High Point, Thomasville and Denton Railroad Company. is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

N. Illinois Central Railroad is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

O. Lake Terminal Rail Company is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by

another party or entity and containing such hazardous substances.

P. Norfolk Southern Railway Company is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

Q. Norfolk & Western Railway Company is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

R. Pittsburgh and Lake Erie Railroad Company, Inc. is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated

by another party or entity and containing such hazardous substances.

S. Richmond, Fredricksburg, and Potomac Railroad Company, Inc. is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

T. Union Railroad Company, Inc. is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

U. USX Corporation is a potentially responsible party under Section 107(a) (3) of CERCLA, 42 U.S.C. §9608(a) (3), as a person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances.

V. The contamination and endangerment to the Site constitute an indivisible harm.

W. EPA has determined that in order to protect the public health, welfare and the environment, actions described in the Amended ROD must be undertaken to reduce or prevent the likelihood of current and future exposure to hazardous substances.

V. SCOPE OF THE RESPONSE ORDERED

A. Based on the foregoing, and the Administrative Record supporting this Order, Respondents are hereby Ordered, jointly and severally, to comply with the following provisions of this Order, including but not limited to, all attachments to this Order, all documents incorporated by reference into this Order, and all schedules and deadlines in this Order, attached to this Order or incorporated by reference into this Order. Respondents are further Ordered to conduct all work consistent with CERCLA, the NCP, 40 C.F.R. Part 300, all applicable federal, state and local laws. Respondents are further ordered not to interfere with the performance of work by Pneumo Abex Corporation, the City of Portsmouth and the PRHA ("the Settling Defendants") whenever and wherever work by those entities is conducted in full compliance with the Consent Decree entered on April 25, 1996.

B. Respondents' shall undertake all actions required by, and comply with, all requirements of this Order including any future modifications to this Order ("the Work").

C. Respondents' obligations under this Order may be fulfilled by jointly fulfilling with the Settling Defendants the obligations of such Settling Defendants under the Consent Decree. To the extent that any portion of the Work is undertaken by any one, or group of the Respondents, and/or the Settling Defendants, the remaining Respondents are not excused from performing under the present Order and are severally liable for all obliqations set forth herein and for ensuring that the Work be completed in a manner consistent with the NCP, CERCLA and all applicable federal, state and local laws.

VI. DEFINITIONS

Unless otherwise expressly provided herein, terms used in this Order that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in the statute or its implementing regulations. Whenever terms listed below are used in this Order or in the documents attached to this Order or incorporated by reference into this Order, the following definitions shall apply:

1. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 *et seq.*

2. "Commonwealth" shall mean the Commonwealth of Virginia.

3. "Consent Decree" shall mean the Consent Decree lodged on January 4, 1996 at Civil Action No. 2:96-CV-27 and entered on April 25, 1996 and all appendices attached thereto.

4. "Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.

5. "Duly Authorized Representative" shall mean a person designated in accordance with the procedures set forth in 40 C.F.R. § 270.11(b).

6. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or successor agencies of the United States.

7. "Explanation of Significant Differences" or "ESD" shall mean the EPA Explanation of Significant Difference dated October 5, 1995 relating to the Amended ROD, set forth in Appendix D to this Order, and made an attachment to the Amended ROD.

8. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, including, but not limited to, any amendments thereto.

9. "Operable Unit 1" shall mean that portion of Site remediation work specified in the Amended Record of Decision issued pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604 and defined in 40 C.F.R. § 300.5.

10. "Operation and Maintenance" or "O & M" shall mean all activities required to maintain the effectiveness

of the Remedial Action as required under the Operation and Maintenance Plan approved or developed by EPA pursuant to this Order.

11. "Order" shall mean the Unilateral Administrative Order concerning the Abex Site issued to Respondents by EPA.

12. "Paragraph" shall mean a portion of the Order identified by an arabic numeral or an upper case letter.

13. "Performance Standards" shall mean those cleanup standards, standards of control, and other substantive requirements, criteria or limitations that are used to determine whether the objectives of the Amended ROD and this Order are being achieved. Performance Standards include those set forth on pages 52-57 of the Amended ROD, attached to this Order as Appendix A, and those that are developed by the Respondents and approved by EPA during the Remedial Design.

14. "RCRA" shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901 *et seq.* (also known as the Resource Conservation and Recovery Act).

15. "Amended Record of Decision" or "Amended ROD" shall mean the EPA Record of Decision relating to the Operable Unit 1 at the Abex Site set forth in Appendix A to this Order and signed in August 1994, by the Regional Administrator, EPA Region III, and all attachments thereto, including the ESD.

16. "Remedial Action" shall mean all activities, as defined by Section 101(24) of CERCLA, 42 U.S.C. § 9601(24), except for Remedial Design and Operation and Maintenance, to be undertaken by Respondents to

implement the Amended ROD and the final plans and specifications submitted pursuant to the Remedial Design Work Plan and approved by EPA.

17. "Remedial Action Work Plan" shall mean a plan for Remedial Action, including a schedule for implementation of Remedial Action, submitted by Respondents and approved by EPA pursuant to Section VII.C of this Order.

18. "Remedial Design" shall mean those activities to be undertaken by the Respondents pursuant to the Remedial Design Work Plan to develop the final plans and specifications for the Remedial Action as specified in the Amended ROD.

19. "Remedial Design Work Plan" shall mean a plan for Remedial Design, including a schedule for remedial design work, submitted by Respondents and approved by EPA pursuant to Section VII.C of this Order.

20. "Section" shall mean a portion of this Order identified by a roman numeral.

21. "Settling Defendants" shall mean those parties listed in Appendix C to this Order.

22. "Site", for the purposes of this Order, shall mean the area to be addressed by OU1 as set forth in the Amended ROD. It encompasses approximately 35 acres (several city blocks), located in Portsmouth, Virginia. The Site is located within a seven hundred foot radius around the former Abex foundry (currently the Holland Property) and the former Abex waste sand disposal areas (currently the Abex and McCready Lots). Both properties are bounded by Seventh, Randolph, and Green Streets.

Other properties located within the Site include: the Washington Park housing development, the Effingham playground, several homes located on Seventh Street, approximately 20 homes located south of the Effingham playground, a drug rehabilitation center and a small shopping area, and several vacant lots east of the Holland property. The Site is depicted more particularly on the map attached as Appendix B to this Order.

23. "Supervising Contractor" shall mean the contractor retained by Respondents to carry out the Work under this Order and accepted by EPA pursuant to Section VIII of this Order.

24. "United States" shall mean the United States of America.

25. "VDEQ" shall mean the Virginia Department of Environmental Quality and any successor departments or agencies of the Commonwealth of Virginia."

26. "Waste Material" shall mean (1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14) and (2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33).

27. "Work" shall mean all activities the Respondents are required to perform under this Order.

VII. PERFORMANCE OF THE WORK BY RESPONDENTS

A. Commitments by Respondents

1. Respondents shall finance and perform the Work in accordance with CERCLA, the NCP, the Consent

Decree, including, but not limited to, pages 52-57 of the Amended ROD, the ESD, this Order and all standards, specifications, and schedules set forth in or developed pursuant to this Order.

2. Should either the City of Portsmouth or the Portsmouth Redevelopment and Housing Authority ("PRHA") fail to perform the tasks set forth in Section VIII.A.1. a.- d. and 2. a-d. of this Order by the relevant dates, Respondents shall be required to perform the contingent remedy described on p. 3 in the Amended ROD. (*See also* Section VIII.A.3.) Should the City of Portsmouth fail to perform the tasks set forth in Section VIII.A.1. e., Respondents shall be required to perform the contingency provisions of the ESD.

3. In the event that any of the Respondents file for bankruptcy or are placed involuntarily in bankruptcy proceedings, such Respondent shall notify the United States in writing within three (3) days of such filing.

B. Permits

1. As provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and 40 C.F.R. § 300.400(e), no permits shall be required for any portion of the Work conducted entirely on-Site. However, Respondents shall ensure that all portions of the Work on the Site shall meet the substantive requirements of any applicable or relevant and appropriate requirement subject to EPA's right of review and approval. Where any portion of the off-site Work requires a federal, state or local permit or approval, Respondents shall timely submit complete applications

and take all other actions necessary to obtain all such permits or approvals.

2. This Order is not, and shall not be construed to be, a permit issued pursuant to any federal, state or local statute, regulation or ordinance.

VIII. WORK TO BE PERFORMED

A. Allocation of Work to Be Performed

Respondents shall perform all Work required under Section VIII (WORK TO BE PERFORMED) of this Order. Respondents shall be under no obligation to perform the tasks identified in Paragraphs A.1 and A.2 of this Section, which the City of Portsmouth or the Portsmouth Redevelopment and Housing Authority are required under the Consent Decree to use their best efforts t perform.

1. The City of Portsmouth is required by the Consent Decree to use its best efforts to perform the following tasks:

(a) Upon receipt of written approval of EPA, adopt and implement institutional controls described in the Amended ROD, except for the placement of warning sheets;

(b) Provide in-kind services to aid remediation efforts by Respondents, contractors/subcontractors, including but not limited to, the use of any reasonably available City-owned construction equipment and City personnel, street sweeping services and water and traffic control services;

(c) Rezone the two square block area bounded by Effingham, Lincoln, Green and Brighton Streets (if Brighton were to be extended between Effingham and Green Streets) ("Effingham two square block area") from residential to commercial or light industrial;

(d) Assist Respondents'contractors/subcontractors in obtaining the requisite permits, licenses, and government cooperation required to perform the remedy set forth in the Amended ROD; and

– (e) construct a permanent City facility, within the meaning of the term as used in the ESD, within the Effingham two square block area within three years of the date the PRHA purchases or condemns all residences located within the Effingham two square block area as described in Section VIII.A.2.c.;.

2. The Portsmouth Redevelopment and Housing Authority is required by the Consent Decree to use its best efforts to perform the following tasks:

(a) Provide in-kind services to aid remediation efforts by Respondents' contractors/subcontractors, including but not limited to, the use of any reasonably available PRHA-owned construction equipment and PRHA personnel, street sweeping services and water and traffic control services;

(b) Assist Respondents contractors/subcontractors in obtaining permits, licenses, and government cooperation required to perform the remedy set forth in the Amended ROD;

(c) Purchase and/or acquire by condemnation the residences located within the Effingham two square

block area within eighteen (18) months of the date of entry of the Consent Decree;

(d) Purchase and/or acquire by condemnation the residences known as the Seventh Street row homes (*See* Appendix B) within eighteen (18) months of the date of entry of the Consent Decree; and

3. Notwithstanding the above, if the City or PRHA fails to perform the tasks described in paragraphs A.1.a-d and A.2.a-d, above, by the times specifically approved by EPA in the Remedial Design Work Plan, Respondents shall be required to implement the contingency provisions of the Amended ROD (as set forth on page 3 of the Amended ROD) and perform all Work required under Section VIII of this Order. If the City fails to perform the tasks described in paragraph A.1.e., above, within three years of the date the PRHA purchases or condemns all residences located within the Effingham two square block area, Respondents shall be required to implement the contingency provisions of the ESD.

4. Respondents may submit a plan to implement the temporary relocation provisions as set forth in the Amended ROD, which may include the use of available lead-abated public housing units for temporary relocation of residents impacted by implementation of the Amended ROD. This plan shall be submitted as part of the Remedial Design Work Plan. A determination by EPA to offer temporary relocation to residents not offered temporary relocation by Respondent shall be in EPA's sole discretion and not subject to judicial review.

B. Selection of Contractors.

1. All aspects of the Work to be performed by Respondents pursuant to Sections VIII (Work to be Performed), IX (Additional Response Actions), X (U.S. EPA Periodic Review), XI (Quality Assurance) and XVII (Emergency Response) of the Order shall be under the direction and supervision of the Supervising Contractor, the selection of which shall be subject to acceptance or disapproval by EPA after a reasonable opportunity for review and comment by the Commonwealth. Within 10 days after the effective date of this Order, Respondents shall notify EPA in writing of the name, title, and qualifications of any contractor proposed to be the Supervising Contractor. If at any time after acceptance by EPA of the selection of a Supervising Contractor, Respondents proposes to change a Supervising Contractor, Respondents shall give such notice to EPA and shall obtain acceptance from EPA, after a reasonable opportunity for review and comment by the Commonwealth, before the new Supervising Contractor performs, directs, or supervises any Work under this Consent Decree.

2. EPA will notify Respondents in writing of its acceptance or disapproval of a proposed selection of a Supervising Contractor. If EPA disapproves of the selection of any contractor as Supervising Contractor, Respondents shall submit to EPA the names of at least three contractors, including the qualifications of each contractor, that would be acceptable to them within 30 days of receipt of EPA's disapproval. EPA will provide written notice of the names of the contractor(s) whose selection it accepts. Respondents may select any accepted contractor from that list and shall notify EPA of the name of the

contractor selected within 21 days of receiving EPA's notice.

3. After the Remedial Design Work Plan or Remedial Action Work Plan is approved and prior to commencement of any Work thereunder, Respondents shall submit to EPA for acceptance the names and qualifications of any additional contractors and subcontractors, including the name(s) and qualifications of the individual(s) or entities responsible for completion of Remedial Design submittal (the "Remedial Design Professional"). Respondents shall notify EPA of the date the contract is entered into with the Remedial Design Professional. The Remedial Design Professional shall provide a Professional Engineer to be present at the Site during construction to ensure that the Work is performed in accordance with the approved Remedial Design submittal(s). EPA retains the right to disapprove the selection of any additional contractors and subcontractors to perform the Work. Within 14 days of receipt by EPA of the names of the additional contractors or subcontractors, EPA will notify Respondents of its acceptance or disapproval of the selection of additional contractors or subcontractors. If EPA disapproves any additional contractor or subcontractor, Respondents may submit further information to EPA giving reasons why the additional contractor or subcontractor selection should be accepted. Within 14 days of the receipt of the notice of disapproval, Respondents shall notify the United States of the name and qualifications of a replacement additional contractor or subcontractor. If at any time during the pendency of this Order a decision is made by Respondents to retain a

substitute additional contractor or subcontractor, selection of the substitute shall be governed by the provisions of this Paragraph.

C. Remedial Design/Remedial Action

1. Within 60 days of the effective date of this Order, Respondents shall submit to EPA for approval a work plan for the design of the Remedial Action at the Site ("Remedial Design Work Plan") and shall submit the Quality Assurance Project Plan (QAPjP, as described in Section XI), prepared in accordance with Section XI. The Remedial Design Work Plan shall provide for the design of the remedy as set forth in pages 52-57 of the Amended ROD, the ESD, and, upon its approval by EPA, shall be enforceable under this Order. Within 60 days of the effective date of this Order, Respondent shall submit to EPA a Health and Safety Plan for field design activities which conforms to the applicable Occupational Safety and Health Administration and EPA requirements including, but not limited to, 29 C.F.R. § 1910.120.

2. The Remedial Design Work Plan shall include but not be limited to: (1) a Sampling and Analysis Plan (SAP), prepared in accordance with Section IX, (2) a Remedial Design Permitting Requirements Plan, (3) a Remedial Design Contingency Plan, (4) work plans and schedules for the design and implementation of treatability studies, and (5) plans and schedules for the preparation and submission of preliminary, pre-final and final design submittals. Each of these plans shall include schedules and methodologies for implementation of all necessary remedial design and pre-design tasks. The treatability study

work plans shall include Treatability Study Construction Quality Assurance Project Plans applicable to necessary construction. In addition, the Remedial Design Work Plan shall include an expeditious schedule for completion of all components of the Remedial Design.

3. Upon approval of the Remedial Design Work Plan, Respondent shall implement the Remedial Design Work Plan in accordance with the schedules and methodologies contained therein. Respondent shall submit all plans, submittals, and other deliverables required pursuant to this Order in accordance with the approved schedule herein for review and approval pursuant to Section XIV (Submissions Requiring Agency Approval; Commonwealth Review and Comment). Unless otherwise directed by EPA, the Respondents shall not commence activities at the Site prior to approval of the Remedial Design Work Plan.

4. The preliminary design submittal required under Paragraph C.2, above, shall include, at a minimum, the following: (1) design criteria; (2) results of treatability studies; (3) results of additional field sampling; (4) project delivery strategy; (5) preliminary plans, drawings and sketches; (6) required specifications in outline form; and (7) preliminary construction schedule.

5. The pre-final and final design submittal required under Paragraph C.2, above, shall each include, at a minimum, the following plans, as well as expeditious schedules and specific methodologies for implementation of these plans: (1) final designs and specifications for the Remedial Action; (2) Operation and Maintenance Plan; (3) a Remedial Action Construction Plan; (4) a Remedial

Action Construction Quality Assurance Plan (CQAP); (5) Field Sampling Plan (directed at measuring progress towards meeting Performance Standards); (6) a Groundwater Monitoring Plan consistent with the Amended ROD; (7) complete specifications for preparation of a Health and Safety Plan for field activities required by the pre-final/final design; (8) complete specifications for preparation of procedures and plans for the decontamination of equipment and disposal of contaminated materials (the "Decontamination Plan"); (9) a Remedial Action Permitting Requirements Plan; and (10) a Remedial Action Contingency Plan. Respondents shall ensure that specifications required under item 7, above, as accepted by EPA and under item 8, above, as approved by EPA, are met by Respondents' contractor(s) in preparing the Health and Safety Plan and the Decontamination Plan. The Decontamination Plan shall be submitted by Respondents for approval, and the Health and Safety Plan for field activities for acceptance, in accordance with the schedule set forth in the final design submittal, and upon approval of the Decontamination Plan and acceptance of such Health and Safety Plan, such plans shall be incorporated in, and enforceable as part of, the Remedial Action Work Plan. The CQAP, which shall detail the approach to quality assurance during construction activities at the Site, shall specify an Independent Quality Assurance Team (IQAT) to conduct a quality assurance program during the construction phase of the project. The IQAT shall be responsible for examining and testing various materials, procedures and equipment during implementation of the construction activities. The IQAT shall perform on-Site inspections of the Work to assess compliance with

project standards, verify that the construction quality assurance plan is implemented, and report to the Respondents and EPA the results of all inspections.

6. Upon approval, approval upon conditions, or modification by EPA, as provided in Paragraphs B and D of Section XIV below, of all components of the final design submittal, the final design submittal shall serve as the Remedial Action Work Plan and shall be enforceable under this Order. Respondents shall implement the activities required under the Remedial Action Work Plan in accordance with the schedules and methodologies contained therein.

7. Respondents shall submit all plans, submittals, and other deliverables required under the Remedial Action Work Plan in accordance with the approved schedule for review and approval pursuant to Section XIV (Submissions Requiring Agency Approval; Commonwealth Review and Comment). Unless otherwise directed by EPA or required under the Remedial Design Work Plan, Respondents shall not commence physical on-Site activities at the Site prior to the date for commencement set forth in the approved schedule in the Remedial Action Work Plan.

D. The Work performed by Respondents pursuant to this Order shall, at a minimum, achieve the Performance Standards.

E. Notwithstanding any action by EPA, Respondents remain fully responsible for achieving the Performance Standards in the Amended ROD and the ESD and EPA approved Work Plans. Nothing in this Order, or in the Remedial Design or Remedial Action Work Plans, or

approval of any other submission, shall be deemed to constitute a warranty or representation of any kind by EPA that full performance of the Remedial Design or Remedial Action will achieve the Performance Standards set forth in the Amended ROD, ESD and in the EPA approved Work Plans.

F. Respondents shall, prior to any off-Site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving facility's state and to the EPA Remedial Project Manager of such shipment of Waste Material. However, this notification requirement shall not apply to any off-Site shipment when the total volume of all shipments will not exceed 10 cubic yards.

1. Respondents shall include in the written notification the following information, where available: (a) the name and location of the facility to which the Waste Materials are to be shipped; (b) the type and quantity of the Waste Materials to be shipped; (c) the expected schedule for the shipment of the Waste Materials; and (d) the method of transportation. Respondents shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Materials to another facility within the same state, or to a facility in another state.

2. The identity of the receiving facility and state will be determined by Respondents following the award of the contract for Remedial Action construction. Respondents shall provide the written notification required by this Section VIII.F, including the information required by

Paragraph F.1, as soon as practicable after the award of the contract, but in no case less that 14 days before the Waste Materials are actually shipped.

IX. ADDITIONAL RESPONSE ACTIONS

A. In the event that EPA determines or Respondents propose that additional response actions are necessary to meet the Performance Standards or to carry out the remedy selected for OU1 in the Amended ROD, as revised by the ESD, notification of such additional response actions shall be provided by EPA to the Respondents' Project Coordinator or by Respondents to the EPA Remedial Project Manager.

B. Within 30 days (or such longer time as may be specified by EPA) of receipt of notice from EPA pursuant to Paragraph A of this Section IX that additional response actions are necessary, Respondents shall submit for approval by EPA, a work plan for the additional response actions. The plan shall conform to the applicable requirements of Section VIII (Work to be Performed). Upon approval of the plan pursuant to Section XIV (Submissions Requiring Agency Approval; Commonwealth Review and Comment), Respondents shall implement the plan for additional response actions in accordance with the schedule contained therein.

C. Any additional response actions that Respondents propose are necessary to meet the Performance Standards or to carry out the remedy selected for OU1 in the Amended ROD and ESD shall be subject to approval by EPA, and, if authorized by EPA, shall be completed by Respondents in accordance with plans, specifications,

and schedules approved or established by EPA pursuant to Section XIV (Submissions Requiring Agency Approval; Commonwealth Review and Comment).

D. If required by Sections 113(k)(2) or 117 of CERCLA, 42 U.S.C. §§ 9613(k)(2) or 9617, or the NCP, Respondents and the public will be provided with an opportunity to comment on any additional response actions proposed pursuant to this Section VIII.B or C and to submit written comments for the record during the public comment period. After the period for submission of written comments is closed, the Regional Administrator, EPA Region III, or his/her delegate will determine in writing whether additional response actions are appropriate.

X. U. S. EPA PERIODIC REVIEW

A. Respondents shall conduct any studies and investigations requested by EPA in order to permit EPA to conduct reviews at least every five years as required by Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), and any applicable regulations.

B. If required by Sections 113(k)(2) or 117 of CERCLA, 42 U.S.C. §§ 9613(k)(2) or 9617, or the NCP, Respondents and the public will be provided with an opportunity to comment on any further response actions proposed by EPA as a result of the review conducted pursuant to Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), and to submit written comments for the record during the public comment period. After the period for submission of written comments is closed, the Regional Administrator, EPA Region III, or his/her delegate will

determine in writing whether further response actions are appropriate.

C. If the Regional Administrator, EPA Region III, or his/her delegate determines that information received, in whole or in part, during the review conducted pursuant to Section 121(c) of CERCLA, indicates that the Remedial Action is not protective of human health and the environment, Respondents shall undertake any further response actions EPA has determined are appropriate.

D. Within 60 days after notice of EPA's determination that further response actions are necessary Respondents shall submit plans for design and implementation of any further response actions they are required to perform in accordance with the applicable procedures set forth in Sections VIII (Work to be Performed) and XIV (Submissions Requiring Agency Approval; Commonwealth Review and Comment) and, upon approval of such plans by EPA, shall complete the further response action in accordance with such plans and any schedules contained therein.

XI. QUALITY ASSURANCE

A. While conducting all sample collection and analysis activities required by this Order, Respondents shall implement quality assurance, quality control and chain of custody procedures in accordance with "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA", 1988 (OSWER Directive 9355.3-01); "EPA NEIC Policies and Procedures Manual", May 1978, revised May 1986 (EPA 330/978-001-R); "Interim Guidelines and Specifications for Preparing

Quality Assurance Project Plans", December 1980 (QAMS 005/80); "A Compendium of Superfund Field Operations Methods", December 1987 (OSWER Directive 9355-0-14) "Data Quality Objectives for Remedial Response Activities", March 1987 (OSWER Directive 9355.0-7B); and amendments to these guidelines.

B. Respondents shall consult with EPA in planning for, and prior to, all sampling and analysis required by this Order, and any subsequent EPA-approved plans prepared as part of this Order. Further, Respondents shall not commence sampling until EPA approves the Remedial Design Work Plan and the Sampling and Analysis Plan (SAP).

C. In order to provide quality assurance and maintain quality control regarding all samples collected pursuant to this Order, Respondents shall:

1. Submit to the EPA Remedial Project Manager the selected laboratory's(ies') Quality Assurance Program Plan (QAPP) and their qualifications, which shall include, at a minimum, previous certifications, Performance Evaluation (PE) results, equipment lists and personnel resumes. The SAP must state that all protocols described therein take precedence over protocols listed in the Laboratory QAPP.

2. Ensure that EPA personnel and/or its authorized representatives are allowed reasonable access to the laboratory(ies), records and personnel utilized by the Respondents in implementing this Order.

3. Prepare a SAP, consisting of a Quality Assurance Project Plan (QAPjP) and a Field Sampling Plan

(FSP), for sample collection, transportation, analysis, validation and reporting to be conducted pursuant to this Order. The SAP shall be submitted as part of the Remedial Design Work Plan to the EPA Remedial Project Manager for review and approval prior to commencing sampling and analysis. Each plan shall specify, for the phase of activity addressed, the data quality objectives (DQOs), sample collection and transportation procedures, data analysis methods, data reduction, data review, and reporting procedures. Selection of analytical methods shall be justified in conjunction with the DQOs. The guidelines referenced in Paragraph (A), above, shall be followed in the preparation of the SAP; additional guidance may be provided by EPA when applicable and/or requested by Respondents.

4. Ensure that the laboratory(ies) analyzing samples pursuant to this Order uses appropriate methods. If EPA Contract Lab Program (CLP) methods are selected, the laboratory(ies) shall use these methods and submit deliverables delineated in the current "Statement of Work of the EPA Contract Lab Program." If non-CLP methods are selected, all constituents and physical parameters shall be analyzed using methods that are specified (method and reference) and justified in the SAP. Non-CLP methods shall be fully described in the QAPjP and approved by the EPA Remedial Project Manager prior to conducting any sampling and analysis. This description shall include, at a minimum, the matrix, calibration, Quality Control (QC) samples (type and frequency), corrective measures, and deliverables.

5. Ensure that the laboratory(ies) analyzing samples pursuant to this Order agrees to demonstrate its

capability to perform the selected analyses by analyzing PE samples, supplied by EPA. Analysis of PE samples may be waived by EPA if the laboratory(ies) satisfactorily analyzed PE samples using the selected methods within the six months prior to analysis conducted pursuant to this Order. Documentation of such PE sample analysis shall be submitted to the EPA Remedial Project Manager for verification.

6. At the request of EPA, conduct one or more audits of the selected laboratory(ies) to verify analytical capability and compliance with the SAP. Auditors shall conduct lab audits at sometime during the time the laboratory(ies) is analyzing samples collected pursuant to this Order. The lab audit shall be conducted according to procedures available from the EPA Environmental Services Division Quality Assurance Branch (QA Branch). Audit reports shall be submitted to the EPA Remedial Project Manager within fifteen days of completion of the audit. Respondents shall report serious deficiencies, including all those which adversely impact data quality, reliability or accuracy, and take action to correct such deficiencies within twenty-four hours of the time they knew or should have known of the deficiency.

7. Conduct at least one field audit (to be described in the QAPjP) during initial sampling activities to verify that field samplers are correctly following sampling procedures described in the SAP. A report of the field audit shall be submitted to the EPA Remedial Project Manager within fifteen days of completion of the audit. Respondents shall report the scope of the audit and the

deficiencies noted, and take action to correct such deficiencies within twenty-four hours of the time Respondents knew or should have known of the deficiency. EPA shall have the option to audit any stage of the field activities.

8. Provide data validation of analyses completed by the laboratory(ies), to determine data usability. If the data is derived by CLP methods, the data validation shall be performed in accordance with the most recent National Functional Guidelines for Data Review and Region III Modifications (available from the QA Branch). For non-CLP methods, the data validation shall be performed as described in the SAP and in accordance with the QC data validation criteria set forth in that method. The quality assurance data validation reports shall be prepared using EPA Region III format (available from the QA Branch) and shall be submitted, along with the validated data summary sheets and the laboratory sample results, to the EPA Remedial Project Manager.

D. At the request of EPA, Respondents shall allow split or duplicate samples to be taken by EPA, and/or its authorized representatives, of any samples collected by Respondents pursuant to this Order. Respondents shall notify EPA not less than 30 days in advance of any such sample collection activity. In addition, EPA shall have the right to take any additional samples that EPA deems appropriate. At the request of Respondents, EPA shall allow split and/or duplicate samples to be taken by Respondents and/or their authorized representatives of any sample collected by EPA pursuant to this Order.

E. Within seven days of a request by EPA, Respondent shall submit to EPA three copies of the results of any sampling and/or test or other data obtained or generated by or on behalf of Respondents pursuant to this Order and requested by EPA.

F. Notwithstanding any provision of this Order, the United States hereby retains all of its information gathering, inspection and enforcement authorities and rights under CERCLA, RCRA and any other applicable statute or regulation.

XII. ACCESS

A. To the extent that the Site or any other property to which access is required for the implementation of this Order is owned or controlled by persons other than Respondents, Respondents shall use best efforts to secure from such persons access for themselves, as well as for EPA and its representatives, including, but not limited to, EPA's contractors, as necessary to effectuate this Order. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access to property of owners who have not been identified as PRPs and who are not liable. If any access, except for the homes to be purchased and/or condemned by PRHA pursuant to Section VIII. A.2.c. and d. of this Order, required to complete the Work is not obtained within 45 days of the date of entry of the Consent Decree, or within 45 days of the date EPA notifies the Respondents in writing that additional access beyond that previously secured is necessary, Respondents shall promptly

notify EPA, and shall include in that notification a summary of the steps Respondents have taken to attempt to obtain access. Access to property to be purchased and/or condemned by PRHA must be obtained within eighteen (18) months of the date of entry of the Consent Decree. EPA may, in its unreviewable discretion, assist Respondents in obtaining access.

C. Notwithstanding any provision of this Order, the United States retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA and any other applicable statute or regulations.

XIII. REPORTING REQUIREMENTS

A. In addition to any other requirement of this Order, Respondents shall submit to EPA and the Commonwealth five copies each of a written monthly progress report that: (1) describes the actions which have been taken toward achieving compliance with this Order during the previous month; (2) includes all results of sampling and tests and all other data received or generated by Respondents or its contractors or agents in the previous month; (3) identifies all work plans, plans and other deliverables required by this Order completed and submitted during the previous month; (4) describes all actions, including, but not limited to, data collection and implementation of work plans, which are scheduled for the next month and provide other information relating to the progress of construction, including, but not limited to, critical path diagrams, Gantt charts and Pert charts; (5) includes information regarding percentage of completion,

unresolved delays encountered or anticipated that may affect the future schedule for implementation of the Work, and a description of efforts made to mitigate those delays or anticipated delays; (6) includes any modifications to the work plans or other schedules that Respondents have have proposed to EPA or that have been approved by EPA; and (7) describes all activities, as approved by EPA under Section XXIV (Community Relations) undertaken in support of the Community Relations Plan during the previous month and those to be undertaken in the next month. Respondents shall submit these progress reports to EPA and the Commonwealth by the tenth day of every month following the efective date of this Order until EPA notifies the Settling Defendants pursuant to Paragraph B(2) of Section XVI (Final Inspection). If requested by EPA, Respondents shall also provide briefings for EPA to discuss the progress of the Work.

B. Respondents shall notify EPA of any change in the schedule described in the monthly progress report for the performance of any activity, including, but not limited to, implementation of work plans, no later than seven days prior to the original date for performance of the activity. Notwithstanding the foregoing, Respondents shall notify EPA of any change in the schedule described in the monthly progress report for the performance of data collection no later than thirty days prior to the performance of such activity.

C. In addition to the reporting required by CERCLA Section 103, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. § 11004, upon the occurrence of any event during performance of the Work that Settling

Defendants are required to report pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of EPCRA, 42 U.S.C. § 11004, Respondents shall, within 24 hours of when they knew or should have known of the onset of such event, orally notify the EPA Remedial Project Manager or the Chief of the Virginia/West Virginia Section (in the event of the unavailability of the EPA Remedial Project Manager), or, in the event that neither the EPA Remedial Project Manager or Section Chief is available, the EPA Region III Hotline at (215) 597-9898. Within 20 days of the onset of such an event, Respondents shall furnish to EPA and the Commonwealth a written report, signed by Respondents' Project Coordinator, setting forth the events which occurred and the measures taken, and to be taken, in response thereto. Within 30 days of the conclusion of such an event, Respondents shall submit a report setting forth all actions taken in response thereto.

D. Except as otherwise provided in this Order, Respondents shall submit six copies of all plans, reports, and data required by the Remedial Design Work Plan, the Remedial Action Work Plan, or any other approved plans to EPA in accordance with the schedules set forth in such plans. Respondents shall simultaneously submit six copies of all such plans, reports and data to the Commonwealth.

E. Plans, design documents, proposals, reports or other documents prepared or authorized to be prepared by Respondents shall be signed by a Duly Authorized Representative of that Respondent certifying the information as follows:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

The Remedial Design Work Plan, Remedial Action Work Plan and any other work plan approved by EPA pursuant to this Order shall specify which documents shall be so certified.

XIV. SUBMISSIONS REQUIRING AGENCY APPROVAL; COMMONWEALTH REVIEW AND COMMENT

A. Any plan, report, or other item which is required to be submitted for approval by EPA pursuant to this Order shall be submitted to the Commonwealth at the same time it is submitted to EPA. After review of any such plan, report or other item, EPA shall, after reasonable opportunity for review and comment by the Commonwealth: (1) approve, in whole or in part, the submission; (2) approve the submission upon specified conditions; (3) modify the submission to cure the deficiencies; (4) direct that the Respondent(s) who submitted the submission modify the submission; (5) disapprove, in

whole or in part, the submission, notifying the Respondent(s) who submitted the submission of deficiencies; or (6) any combination of the above.

B. In the event of approval, approval upon conditions, or modification by EPA, the Respondent who submitted the submission shall proceed to take any action required by the plan, report, or other item, as approved or modified by EPA.

C. Upon receipt of a notice of disapproval or a notice requiring a modification, such Respondent shall, within 14 days or such other time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other item for approval. Notwithstanding the notice of disapproval or a notice requiring a modification, the Respondent who submitted the submission shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission.

D. In the event that a resubmitted plan, report or other item, or portion thereof, is disapproved by EPA, EPA may again require that the Respondent correct the deficiencies, in accordance with the preceding Paragraphs. EPA also retains the right to amend or develop the plan, report or other item. The Respondent who submitted the submission shall implement any such plan, report, or item as amended or developed by EPA.

E. If a plan, report, or item is disapproved by EPA because it is deemed substantially deficient by EPA, the Respondent who submitted the submission shall be deemed to be in violation of the provision of this Order requiring that Respondent submit such plan, report, or item.

F. All plans, reports, and other items required to be submitted to EPA under this Order shall, upon modification and/or approval by EPA, be enforceable under this Order. In the event that EPA approves a portion of a plan, report, or other item required to be submitted to EPA under this Order, the approved portion shall be enforceable under this Order.

XV. ASSURANCE OF ABILITY TO COMPLETE WORK

A. Within 30 days of the effective date of this Order, Respondents shall establish and maintain financial security in the amount of $20,000,000 (the approximate current estimated cost of the remedy) in the form of a Letter of Credit. On the first anniversary date of the effective date of this Order, Respondents shall establish and maintain a second Letter of Credit in the amount of $20,000,000. On the second anniversary date of the effective date of this Order, and every anniversary thereafter, Respondents shall revise the amount of the financial security provided under this Section to the estimated cost of the remaining work to be performed. Respondents shall submit their estimated cost of the remaining work to be performed to EPA 60 days prior to the second anniversary date of the effective date of this Order and each anniversary date thereafter. Upon approval by EPA, Respondents shall establish and maintain the current estimated cost of the remedy in one of the following forms:

(1) A surety bond guaranteeing performance of the Work;

(2) One or more letters of credit;

(3) A trust fund;

(4) A corporate guarantee to perform the Work by one or more parent corporations or subsidiaries, or by one or more unrelated corporations that have a substantial business relationship with Respondents; or

(5) A demonstration that Respondents satisfy the requirements of 40 C.F.R. § 264.143(f) (April 7, 1982, as amended May 2, 1986).

Such financial security shall be maintained by Respondents until EPA agrees that the Work has been completed and issues Concurrence Notice No. 2 in accordance with Section XVI.

B. If Respondents seek to demonstrate their ability to complete the Work through a corporate guarantee by a third party pursuant to Paragraph A(4) of this Section XV, Respondents shall demonstrate that the guarantor satisfies the requirements of 40 C.F.R. § 264.143(f). If Respondents seek to demonstrate their ability to complete the Work by means of the financial test or the corporate guarantee, they shall resubmit sworn statements conveying the information required by 40 C.F.R. § 264.143(f) annually, on the anniversary of the effective date of this Order.

C. In the event that EPA, after a reasonable opportunity for review and comment by the Commonwealth, determines at any time that the financial assurances provided pursuant to this Paragraph are inadequate, Respondents shall, within 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in

Paragraph A of this Section XV. Respondents' inability to demonstrate financial ability to complete the Work shall not excuse performance of any activities required under this Order.

XVI. FINAL INSPECTION

A. Completion of the Remedial Action

1. Within 30 days after Respondents conclude that the Remedial Action has been fully performed and the Performance Standards have been attained, Respondents shall provide written notice to EPA and shall schedule and conduct a final inspection to be attended by Respondents and EPA. If, after the final inspection, Respondents still believe that the Remedial Action has been fully performed and the Performance Standards have been attained, it shall submit a written report to EPA for approval pursuant to Section XIV (Submissions Requiring Agency Approval; Commonwealth Review and Comment) within 30 days of the final inspection. In the report, a registered professional engineer ("RPE") and a Duly Authorized Representative of Respondents shall certify pursuant to Section XIII.E that the Remedial Action has been completed in full satisfaction of the requirements of this Order. The written report shall include as-built drawings signed and stamped by a RPE and certified as required by Section XIII.E. If, after completion of the final inspection and receipt and review of the written report, EPA determines that the Remedial Action or any portion thereof has not been completed in

accordance with this Order or that the Performance Standards have not been achieved, EPA will notify Respondents in writing of the activities that must be undertaken to complete the Remedial Action and achieve the Performance Standards. EPA will set forth in the notice a schedule for performance of such activities consistent with the Order or require Respondents to submit a schedule to EPA for approval pursuant to Section XIV (Submissions Requiring Agency Approval; Commonwealth Review and Comment). Respondents shall perform all activities described in the notice in accordance with the specifications and schedules established pursuant to this Paragraph.

2. IF EPA concludes, based on the initial or any subsequent written report by Respondent, that the Remedial Action has been fully performed in accordance with this Order and that the Performance Standards have been achieved, EPA will so notify Respondents in writing of its concurrence (hereinafter "Concurrence Notice"). However, should EPA obtain information subsequent to the issuance of its Concurrence Notice not provided by Respondents in its written report, and that information indicates that the Remedial Action has not been fully performed and/or that the Performance Standards have not been attained, EPA may revoke its Concurrence Notice and require Respondents to complete the necessary work. Respondents can re-submit a written report to EPA, in accordance with Section XVI.A.1 above, after performance of the necessary work, seeking the EPA's Concurrence Notice. Receipt by Respondents of EPA's Concurrence Notice shall not affect Respondents' obligations under this Order that continue beyond receipt of the

Concurrence Notice, including, but not limited to, access, Operation and Maintenance, record retention, indemnification, insurance, and any work conducted under Section IX (Additional Response Actions), Section X (U.S. EPA Periodic Review), Section XIII (Reporting Requirements), Section XIX (Access to Information), and Section XXIV (Community Relations).

B. Completion of the Work

1. Within 30 days after Respondents conclude that all phases of the Work (including O&M) have been fully performed, it shall provide written notice to EPA by submitting a written report by a RPE certifying that the Work has been completed in full satisfaction of the requirements of this Order. The report shall also contain the certification required by Section XIII.E. If, after review of the written report, EPA determines that any portion of the Work has not been completed in accordance with this Order, EPA will notify Respondents in writing of the activities that must be undertaken to complete the Work. EPA will set forth in the notice a schedule for performance of such activities consistent with the Order or require Respondents to submit a schedule to EPA for approval pursuant to Section XIV (Submissions Requiring Agency Approval; Commonwealth Review and Comment). Respondents shall perform all activities described in the notice in accordance with the specifications and schedules established pursuant to this paragraph.

2. If EPA concludes, based on the initial or any subsequent written report by Respondents that the Work

has been fully performed in accordance with this Order, EPA will so notify Respondents in writing of its concurrence (hereinafter 'Concurrence Notice No. 2'). However, should EPA obtain information subsequent to the issuance of its Concurrence Notice No. 2, not provided by Respondents in its written report and that information indicates that the Work has not been completed in full satisfaction of the requirements of this Order, EPA may revoke its Concurrence Notice No. 2 and require Respondents to complete the necessary work. Respondents can re-submit a written report to EPA, in accordance with Section XVI.B.1 above, after performance of the necessary work, seeking EPA's Concurrence Notice No. 2.

XVII. EMERGENCY RESPONSE

A. In the event of any action or occurrence during the performance of the Work which causes or threatens a release of Waste Material that constitutes an emergency situation or may present an immediate threat to the public health or welfare or the environment, Respondents shall, subject to Paragraph B of this Section XVII, immediately take all appropriate action to prevent, abate, or minimize such release or threat of release, and shall immediately notify the EPA Remedial Project Manager, or, if the EPA Remedial Project Manager is unavailable, the Chief, Virginia/West Virginia Section, Superfund General Remedial Branch. If neither of these persons is available, the Respondents shall notify the EPA Region III Hotline at (215) 597-9898. Respondents shall take such actions in consultation with the EPA Remedial Project Manager or other available authorized EPA officer and in accordance with all applicable provisions of the Health

and Safety Plans, the Contingency Plans, or any other applicable plans or documents developed and approved pursuant to this Order.

B. Nothing in the preceding Paragraph or this Order shall be deemed to limit any authority of the United States to take, direct, or order all appropriate action or to seek an order from the Court to protect human health, welfare and the environment or to prevent, abate, or minimize an actual or threatened release of Waste Material on, at, or from the Site.

XVIII. INSURANCE

A. No later than 15 days before commencing any on-site Work, Respondents shall secure and maintain or shall ensure that their Supervising Contractor, Contractors and Subcontractors secure and maintain until the first anniversary of EPA's certification of completion of the Remedial Action or issuance of the Concurrence Notice pursuant to Paragraph A.2 of Section XVI (Final Inspection) comprehensive general liability insurance with limits of five million dollars, combined single limit, naming EPA as additional insured. No later than 15 days after the effective date of this Order, Respondents shall secure automobile liability insurance with limits of $500,000 and shall maintain such insurance until the first anniversary of EPA's issuance of the Concurrence Notice pursuant to Paragraph A.2 of Section XVI (Final Inspection). In addition, for the duration of this Order, Respondents shall satisfy, and shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation

insurance for all persons performing the Work on behalf of Respondents in furtherance of this Order. Prior to commencement of the Work under this Order, Respondents shall provide to EPA certificates of comprehensive general liability and automobile insurance and a copy of each insurance policy. Respondents shall resubmit such certificates and copies of policies each year on the anniversary of the effective date of this Order. If Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering the same risks but in a lesser amount, then, with respect to matters so insured by that contractor or subcontractor, Respondents need provide only that portion of the insurance described above which is not maintained by the contractor or subcontractor. Respondents may satisfy the provisions of this Paragraph A if it submits to EPA for approval one of the financial assurance mechanisms of Section XV (Assurance of Ability to Complete Work) in at least the amounts stated in this Paragraph A demonstrating that it is able to pay any claims arising out of its performance of its obligations under this Order. Such financial assurance mechanism shall meet all of the requirements of Section XV (Assurance of Ability to Complete Work). If Respondents seek to utilize the mechanisms set forth in Section XV (Assurance of Ability to Complete Work) to satisfy the provisions of this Paragraph A, it must demonstrate an ability to pay the amounts required under this paragraph, above and beyond that required by the obligations of Section XV (Assurance of Ability to Complete Work).

XIX. ACCESS TO INFORMATION

A. Respondents shall provide to EPA, upon request, copies of all documents and information within their possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondents shall also make available to EPA, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

B. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to EPA under this Order to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to EPA, or if EPA has notified Respondents that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, the public may be given access to such documents or information without further notice to Respondents. The Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal courts in actions involving the

United States. If the Respondents assert such a privilege, they shall provide EPA with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the contents of the document, record, or information; and (6) the nature and basis of the privilege asserted by Respondents. However, no documents, records or information created, generated or collected pursuant to the requirements of the Order shall be withheld on the grounds that they are privileged.

C. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

XX. RETENTION OF RECORDS

A. Each Respondent shall preserve and retain all records and documents now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or liability of any person, including any Respondent, for response actions conducted and to be conducted at the Site, regardless of any corporate retention policy to the contrary, until ten years after the Respondents' receipt of EPA's notification pursuant to Paragraph B.2 of Section XVI (Final Inspection). Respondents shall also instruct their contractors and agents to preserve all documents,

records, and information of whatever kind, nature or description relating to the performance of the Work until ten years after the Respondents' receipt of EPA's notification pursuant to Paragraph B.2 of Section XVI (Final Inspection).

B. Upon conclusion of this document retention period, Respondents shall notify EPA at least 90 days prior to the destruction of any such records, documents or information, and, upon request of EPA, Respondents shall deliver all such documents, records and information to EPA. Respondents may assert a claim of business confidentiality or attorney-client privilege or other privilege recognized by federal courts in actions involving the United States for certain documents and/or portions of documents or information and such claims shall be handled in accordance with the provisions of Section XIX (ACCESS TO INFORMATION). In no event shall Respondents destroy such records or documents until EPA responds in writing approving such destruction.

XXI. DESIGNATED PROJECT COORDINATORS

A. The EPA's Project Coordinator shall be the EPA RPM. Unless otherwise directed by the EPA RPM, all communications, whether written or oral, from Respondents to EPA shall be directed to EPA's RPM. EPA's RPM is:

Ron Davis
U.S. Environmental Protection Agency
Region III
841 Chestnut Building (3HW23)
Philadelphia, PA 19107
(215) 597-1727

B. EPA has the discretionary right to change its RPM. If EPA changes its RPM, EPA will inform Respondents in writing of the name, address, and telephone number of the new RPM.

C. EPA's RPM shall have the authority lawfully vested in an RPM by the National Contingency Plan, 40 C.F.R. Part 300, and any amendment thereto. In addition, EPA's RPM shall have authority, consistent with the NCP, to halt any work required by this Order, and to take any necessary response action when the RPM determines that conditions at the Site may present an imminent and substantial endangerment to public health or welfare or the environment.

D. Within ten (10) days after the effective date of this Order, Respondents shall designate a Project Coordinator and shall submit the name and qualifications of the Project Coordinator, including any support entities and staff, to EPA for review and acceptance. Respondents' Project Coordinator shall be responsible for overseeing the Respondents' implementation of this Order, however, for this proceeding, Respondents' Project Coordinator shall not be its legal counsel. If Respondents wish to change their project Coordinator, Respondents shall provide written notice to EPA, five (5) days prior to changing the Project Coordinator, of the name and qualifications of the new Project Coordinator.

E. Respondents' selection of a Project Coordinator shall be subject to EPA acceptance. If EPA does not accept the selection of the Project Coordinator, Respondents shall submit to EPA a list of proposed Project Coordinators, including primary support entities and staff, that

would be acceptable to them, within thirty (30) days after receipt of EPA's notice not to accept the Project Coordinator previously selected. EPA will then provide written notice to Respondents, and the Respondents may then select any accepted Project Coordinator from EPA's list and shall notify EPA of the name of the Project Coordinator selected within twenty-one (21) days of EPA's designation of accepted Project Coordinators.

F. Each Project Coordinator will be responsible for overseeing the implementation of this Order.

G. No informal advice or guidance from the EPA RPM shall relieve Respondents of any obligations under this Order.

H. EPA's Remedial Project Manager and Respondents' Project Coordinator will confer or meet, at a minimum, on a monthly basis.

XXII. DELAY IN PERFORMANCE

A. Any delay in performance of this Order that, in EPA's judgment, is not properly justified by Respondents under the terms of this Section shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondents' obligations to perform fully all obligations under the terms and conditions of this Order.

B. Respondents shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to EPA's RPM within forty-eight (48) hours after Respondents first knew or should have known that a delay

might occur. Respondents shall adopt all reasonable measures to avoid or minimize any such delay. Within five (5) business days after notifying EPA by telephone, Respondents shall provide written notification that fully describes the nature of the delay, the measures taken and those planned to minimize the delay, and a schedule for implementing the measures that will be taken to mitigate the effect of the delay. Increased costs or expenses associated with implementation of the activities called for in this Order are not justification for any delay in performance.

XXIII. ENFORCEMENT AND RESERVATIONS OF RIGHTS

A. EPA reserves all rights, claims, interests, and defenses it has under CERCLA or any other law or in equity.

B. Nothing herein shall be construed to prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, to seek injunctive relief, or to seek the imposition of statutory penalties.

C. EPA reserves all rights, including the right to institute legal action against the Respondents, in connection with the performance of any response actions not addressed by this Order.

D. EPA reserves the right to disapprove of Work performed by Respondents pursuant to this Order, to require that Respondents correct and/or re-perform any and all Work disapproved by EPA, and to require that

Respondents perform response actions in addition to those required by this Order.

E. EPA reserves the right to take enforcement actions, including actions for monetary penalties, for any violation of law, regulation, or of this Order. Failure to comply with this Order subjects Respondents to the assessment of civil penalties of up to $25,000 per day and/or punitive damages in an amount up to three times the amount of any costs incurred by the United States as a result of such failure.pursuant to Sections 106(b) and 107(c) of CERCLA, 42 U.S.C. §§ 9606(b) and 9607(c). EPA may also undertake other actions as it may deem necessary or appropriate for any purpose including, but not limited to, actions pursuant to Sections 104 and/or 106 of CERCLA, 42 U.S.C. §§ 9604 and/or 9606.

F. EPA reserves the right to undertake removal and/or remedial actions, including all actions required by this Order, at any time such actions are appropriate under CERCLA and the NCP, and to seek reimbursement from Respondents for any costs incurred.

G. EPA reserves the right to bring an action against Respondents pursuant to Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of all response costs incurred by the United States in connection with this Order and not reimbursed by Respondents, as well as any other costs incurred by the United States in connection with response actions conducted pursuant to CERCLA at the Site. This reservation shall include but not be limited to past costs, direct costs, indirect costs, the costs of oversight, the costs of analyzing the cost documentation to

support oversight cost demand, as well as accrued interest as provided in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

XXIV. COMMUNITY RELATIONS

As requested by EPA, Respondents shall participate in the preparation of such information for dissemination to the public and in public meetings which may be held or sponsored by EPA to explain activities at or relating to the Site.

XXV. GENERAL PROVISIONS

A. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action, or demand in law or equity against any person, firm, partnership, or corporation not bound by this Order for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Site.

B. This Order does not constitute any decision on preauthorization of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2).

C. Neither EPA nor the United States, by issuance of this Order, assumes any liability for any acts or omissions by Respondents, or Respondents' employees, agents, contractors, or consultants engaged to carry out any action or activity pursuant to this Order, nor shall EPA or the United States be held as a party to any

contract entered into by Respondents, Respondents' employees, agents, contractors, or consultants engaged to carry out the requirements of this Order.

D. Nothing herein shall constitute or be construed as a satisfaction or release from liability of Respondents or any other person.

XXVI. EFFECTIVE DATE AND OPPORTUNITY TO CONFER

A. Not later than twenty-five (25) days from the date of issuance of this Order, Respondents may confer with EPA to discuss the scope and applicability of this Order, the findings upon which this Order is based, the appropriateness of any action or activity required to be undertaken hereby, or other issues directly relevant to issuance of this Order. Such a conference is not, and shall not be deemed to be, an adversarial hearing or part of a proceeding to challenge this Order, and no official stenographic record of such proceeding shall be kept. Any request for a conference within the prescribed time frame shall be made to:

Jean Heflin Kane
Sr. Assistant Regional Counsel
U.S. Environmental Protection Agency
841 Chestnut Building (3RC32)
Philadelphia, Pennsylvania 19107
(215) 597-6779

B. This Order is deemed "issued" on the date it is signed by the Regional Administrator of EPA Region III. This Order shall become effective ten (10) days following the date on which it is issued.

XXVII. NOTICE OF INTENT TO COMPLY

A. Respondents shall provide, not later than five (5) days after the effective date of this Order, written notice to EPA's RPM stating whether they will comply with the terms of this Order. If Respondents do not unequivocally and unqualifiedly commit to perform the Work as provided by this Order, they shall be deemed to have violated this Order and to have failed or refused to comply with this Order. Respondents shall describe, using facts that exist on or prior to the effective date of this Order, any "sufficient cause" defenses asserted by Respondents under Sections 106(b) and 107(c)(3) of CERCLA, 42 U.S.C. §§ 9606(b) and 9607(c)(3). The absence of a response by EPA to the notice required by this Section shall not be deemed to be acceptance of Respondents' assertions.

B. Failure by any Respondent to provide such notice shall be a violation of this Order and deemed to be a decision by such Respondent not to comply with the terms of this Order. Said failure to comply may trigger an agency decision to file a judicial action or to initiate a Superfund response action at the Site.

XXVIII. ADMINISTRATIVE RECORD

The Administrative Record compiled in support of this Order may be reviewed at the EPA Region III offices by contacting the EPA RPM.

XXIX. APPENDICES

The following appendices are attached to and incorporated into this Order:

"Appendix A" is the Amended ROD.

"Appendix B" is the map of the Site.

"Appendix C" is the complete list of the Settling Defendants.

"Appendix D" is the ESD.

XXX. THE UNITED STATES NOT LIABLE

The United States, by issuance of this Order, assumes no liability for any injuries or damages to persons or property resulting from acts or omissions by Respondents, or their directors, officers, employees, agents, representatives, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order. Neither EPA nor the United States may be deemed to be a party to any contract entered into by Respondents or their directors, officers, employees, agents, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order.

IT IS SO ORDERED.

/s/ Illegible
W. Michael McCabe
Regional Administrator
U.S. Environmental
Protection Agency
Region III

5/6/96
DATE

I hereby certify that the within is a true and correct copy of the original order filed in this matter.

/s/ Mary B. Coe
Attorney for U.S. EPA
Region III

[LOGO] **U.S. Department of Justice**

Environmental and Natural Resources Division

Assistant Attorney General *Telephone (202) 514-2701*
950 Pennsylvania Avenue, N.W. *Facsimile (202) 514-0557*

May 13, 1998

Ms. Patricia S. Connor, Clerk
United States Court of Appeals for the
Fourth Circuit
1100 East Main Street, 5th Floor
Richmond, VA 23219

Re: *Pneumo Abex Corporation et al., v. High Point, Thomasville & Denton Railroad Co. et al.*, 4th Cir. Nos. 97-1593, 1594, 1599

Dear Ms. Connor:

The United States submits this letter (an original and 19 copies for distribution to the Court regarding the petition filed by the Appellees seeking rehearing and suggesting rehearing en banc of the Court's recent decision in Pneumo Abex Corporation et al., v. High Point, Thomasville & Denton Railroad Co. et al., 4th Cir Nos. 97-1593, 97-1594, and 97-1599 (decided April 29, 1998). In that decision, the panel (Circuit Judge Luttig, Judge Goodwin of the United States District Court for the Southern District of West Virginia, Senior Judge Michael of the United States District Court for the Western District of Virginia) concluded that the defendant railroad companies, which had sent their lead-containing worn-out or broken wheel bearings to a foundry, were not liable under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42

U.S.C. §§ 9601-9675, for clean up of the contamination resulting from the treatment of the bearings. The panel concluded that the bearings were not waste and, therefore, that the railroads were not liable as parties that arranged for treatment of a hazardous substance under CERCLA. The United States Environmental Protection Agency (EPA) estimates that the costs of the clean up will be at least $21 million.

The panel's decision raises issues of serious concern regarding the interpretation and application of CERCLA. As the federal agency chiefly responsible for implementing and interpreting CERCLA, EPA has a substantial interest in the standard of liability, under sections 107(a) and 113 of CERCLA, 42 U.S.C. 9607(a) and 9613, for persons who arrange for the treatment or disposal of hazardous substances at reclamation and other recycling facilities, where the hazardous substances have contributed to the contamination at a Superfund site. EPA also has concerns about the panel's decision in this case because of its possible implications regarding the definitions of "treatment" or "waste" for the purposes of EPA's hazardous and solid waste programs under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6921-6939e.

Many spent, used, or worn products that contain hazardous substances are discarded when they have become unusable for the purpose for which they were manufactured and sent to sites for reclamation or other recycling. Numerous Superfund sites on the National Priorities List in need of clean up (40 C.F.R. Part 300, Appendix B) are sites of former reclamation and other

recycling activities. Issues concerning the liability of parties that have sent hazardous substances to these sites are of considerable importance to the federal government, and to any liable party seeking to recover the clean up costs.

This decision recently came to our attention, with insufficient time for the government to consider a substantive filing. For this reason, we are sending a letter to let the Court know of our interest and concern. Should the Court grant rehearing or rehearing en banc, the United States will consider filing a request to participate as *amicus curiae*.

Respectfully submitted,

/s/ Lois J. Schiffer
Lois J. Schiffer
Assistant Attorney General

cc: Counsel of Record

[LOGO]

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

VIA FEDERAL EXPRESS

Pamela E. Savage, Esquire
Senior Counsel
CSX Transportation
Law Department
500 Water Street
Jacksonville, FL 32202

Aug 07 1998

RE: Suspension of Order No. III-3-96-70-DC ("Pneumo Abex Superfund Site")

Dear Ms. Savage:

In response to your letter dated June 8, 1998 to Jean Heflin Kane, Esquire, the Environmental Protection Agency (EPA) has carefully considered your request that EPA withdraw its May 6, 1996 Unilateral Administrative Order for RD/RA, as amended (the Order), issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. § 9606(a), to CSX Transportation, Inc. ("CSX"), in connection with the remedial action currently being performed at Operable Unit One (OU1) of the "Pneumo Abex Superfund Site."

Notwithstanding EPA's views of the Fourth Circuit Court of Appeals' recent decision in *Pneumo Abex Corp. v. High Point Thomasville and Denton R.R. Co.*, No. 97-1573, 1998 U.S. App. LEXIS 8238 (4th Cir. April 29, 1998), EPA

has determined that, as a matter of fairness, it will suspend the effectiveness of the May 6, 1996 Order, in view of the myriad issues raised by the Court's decision and the Court's interpretation of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).

Accordingly, EPA hereby suspends the obligation of the **"Respondents"** (as that term is defined on Page 2 of the Order) to comply with the terms and conditions of the Order (including, but not limited to, all attachments to the Order, all documents incorporated by reference, and all schedules and deadlines in the Order attached to or incorporated by reference). This suspension includes, among other things, the obligation of Respondents to establish and maintain a source of funding for the completion of response activities being conducted at the Site, as well as the obligation to perform "Work" pursuant to Sections VIII (Work to be Performed), IX (Additional Response Actions), X (U.S. EPA Periodic Review), XI (Quality Assurance) and XVII (Emergency Response) of the Order.

The suspension of obligations as set forth herein may be lifted at any time upon notice from the Director, Hazardous Site Cleanup Division, or his/her authorized representative. Such notice shall be effective upon receipt by the Project Coordinator designated by the Respondents, pursuant to Section XXI.D. of the Order. In the event that EPA lifts the suspension of this Order at any time in the future, EPA will issue a new schedule for Respondents to come into compliance.

If you have any questions with regard to this decision, please feel free to contact Dennis M. Abraham, Assistant Regional Counsel, at (215) 814-5214.

Thank you for your patience and cooperation in awaiting this response.

Sincerely,

/s/ Illegible
W. Michael McCabe
Regional Administrator

Enclosure: Universal Service List